



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-HQ-ES-2022-0174; FF09E21000 FXES1111090FEDR 234]

Endangered and Threatened Wildlife and Plants; Review of Species That Are Candidates for Listing as Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notification of review.

SUMMARY: In this candidate notice of review (CNOR), we, the U.S. Fish and Wildlife Service (Service), present an updated list of plant and animal species that we regard as candidates for or have proposed for addition to the Lists of Endangered and Threatened Wildlife and Plants under the Endangered Species Act of 1973, as amended. This document also includes our findings on resubmitted petitions and describes our progress in revising the Lists of Endangered and Threatened Wildlife and Plants (Lists) during the period October 1, 2021, through September 30, 2022. Combined with other decisions for individual species that were published separately from this CNOR in the past year, the current number of species that are candidates for listing is 23 (as of September 30, 2022). Identification of candidate species can assist environmental planning efforts by providing advance notice of potential listings, and by allowing landowners, resource managers, States, Tribes, range countries, and other stakeholders to take actions to alleviate threats and thereby possibly remove the need to list species as endangered or threatened. Even if we subsequently list a candidate species, the early notice provided here could result in more options for species management and recovery by prompting earlier candidate conservation measures to alleviate threats to the species.

DATES: We are publishing this document on [INSERT DATE OF PUBLICATION IN THE

FEDERAL REGISTER]. We will accept information on any of the species in this document at any time. **ADDRESSES:** This document is available on the internet at <https://www.regulations.gov>.

Species assessment forms with information and references on a particular candidate species' range, status, habitat needs, and listing priority assignment are available for review on our website (https://ecos.fws.gov/tess_public/reports/candidate-species-report). Please submit any new information, materials, comments, or questions of a general nature on this document to the address listed under **FOR FURTHER INFORMATION CONTACT**. Please submit any new information, materials, comments, or questions pertaining to a particular species to the address of the Regional Director or Branch Chief in the appropriate office listed under **Request for Information** in **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT: Caitlin Snyder, Chief, Branch of Domestic Listing, U.S. Fish and Wildlife Service, MS: ES, 5275 Leesburg Pike, Falls Church, VA 22041–3803 (telephone: 703–358–2673). Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Background

The Endangered Species Act of 1973 (Act; 16 U.S.C. 1531 et seq.), as amended, requires that we identify species of wildlife and plants that are endangered or threatened based solely on the best scientific and commercial data available. As defined in section 3 of the Act, an endangered species is any species that is in danger of extinction throughout all or a significant portion of its range, and a threatened species is any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its

range. Through the Federal rulemaking process, we add species that meet these definitions to the List of Endangered and Threatened Wildlife in title 50 of the Code of Federal Regulations (CFR) at § 17.11 (50 CFR 17.11) or the List of Endangered and Threatened Plants at 50 CFR 17.12. As part of this process, we maintain a list of species that we regard as candidates for listing. A candidate species is one for which we have on file sufficient information on biological vulnerability and threats to support a proposal for listing as endangered or threatened, but for which preparation and publication of a proposal is precluded by higher-priority listing actions. We may identify a species as a candidate for listing after we have conducted an evaluation of its status—either on our own initiative, or in response to a petition we have received. If we have made a finding on a petition to list a species, and have found that listing is warranted but precluded by other higher-priority listing actions, we will add the species to our list of candidates.

We maintain this list of candidates for a variety of reasons: (1) To notify the public that these species are facing threats to their survival; (2) to provide advance knowledge of potential listings that could affect decisions of environmental planners and developers; (3) to provide information that may stimulate and guide conservation efforts that will remove or reduce threats to these species and possibly make listing unnecessary; (4) to request input from interested parties to help us identify those candidate species that may not require protection under the Act, as well as additional species that may require the Act's protections; and (5) to request necessary information for setting priorities for preparing listing proposals. We encourage collaborative conservation efforts for candidate species and offer technical and financial assistance to facilitate such efforts. For additional information regarding such assistance, please contact the appropriate Office listed under **Request for Information**, below, or visit our website at:

<https://www.fws.gov/program/endangered-species/what-we-do>.

Previous CNORs

We have been publishing CNORs since 1975. The most recent was published on May 3,

2022 (87 FR 26152).

On September 21, 1983, we published guidance for assigning a listing priority number (LPN) for each candidate species (48 FR 43098). Using this guidance, we assign each candidate an LPN of 1 to 12, depending on the magnitude of threats, immediacy of threats, and taxonomic status; the lower the LPN, the higher the listing priority (that is, a species with an LPN of 1 would have the highest listing priority). Section 4(h)(3) of the Act (16 U.S.C. 1533(h)(3)) requires the Secretary to establish guidelines for such a priority-ranking system. As explained below, in using this system, we first categorize based on the magnitude of the threat(s), then by the immediacy of the threat(s), and finally by taxonomic status.

Under this priority-ranking system, magnitude of threat can be either “high” or “moderate to low.” This criterion helps ensure that the species facing the greatest threats to their continued existence receive the highest listing priority. All candidate species face threats to their continued existence, so the magnitude of threats is in relative terms. For all candidate species, the threats are of sufficiently high magnitude to put them in danger of extinction or make them likely to become in danger of extinction in the foreseeable future. However, for species with higher magnitude threats, the threats have a greater likelihood of bringing about extinction or are expected to bring about extinction on a shorter timescale (once the threats are imminent) than for species with lower-magnitude threats. Because we do not routinely quantify how likely or how soon extinction would be expected to occur absent listing, we must evaluate factors that contribute to the likelihood and time scale for extinction. We, therefore, consider information such as: (1) The number of populations or extent of range of the species affected by the threat(s), or both; (2) the biological significance of the affected population(s), taking into consideration the life-history characteristics of the species and its current abundance and distribution; (3) whether the threats affect the species in only a portion of its range, and, if so, the likelihood of persistence of the species in the unaffected portions; (4) the severity of the effects and the rapidity with which they have caused or are likely to cause mortality to individuals and accompanying

declines in population levels; (5) whether the effects are likely to be permanent; and (6) the extent to which any ongoing conservation efforts reduce the severity of the threat(s).

As used in our priority-ranking system, immediacy of threat is categorized as either “imminent” or “nonimminent,” and is based on when the threats will begin. If a threat is currently occurring or likely to occur in the very near future, we classify the threat as imminent. Determining the immediacy of threats helps ensure that species facing actual, identifiable threats are given priority for listing proposals over species for which threats are only potential or species that are intrinsically vulnerable to certain types of threats but are not known to be presently facing such threats.

Our priority-ranking system has three categories for taxonomic status: Species that are the sole members of a genus; full species (in genera that have more than one species); and subspecies and distinct population segments of vertebrate species (DPSs).

The result of the ranking system is that we assign each candidate an LPN of 1 to 12. For example, if the threats are of high magnitude, with immediacy classified as imminent, the listable entity is assigned an LPN of 1, 2, or 3 based on its taxonomic status (i.e., a species that is the only member of its genus would be assigned to the LPN 1 category, a full species to LPN 2, and a subspecies or DPS would be assigned to LPN 3). In summary, the LPN ranking system provides a basis for making decisions about the relative priority for preparing a proposed rule to list a given species. No matter which LPN we assign to a species, each species included in this document as a candidate is one for which we have concluded that we have sufficient information to prepare a proposed rule for listing because it is in danger of extinction or likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

For more information on the process and standards used in assigning LPNs, a copy of the 1983 guidance is available on our website at: <https://www.fws.gov/library/collections/listing-and-classification-policies-and-regulations>. The species assessment and listing priority assignment form for each candidate contains the LPN chart and a more-detailed explanation—including

citations to, and more-detailed analyses of, the best scientific and commercial data available—for our determination of the magnitude and immediacy of threat(s) and assignment of the LPN; these forms are available for review on the website provided above in **ADDRESSES**.

Summary of This CNOR

Since publication of the previous CNOR on May 3, 2022 (87 FR 26152), we reviewed the available information on candidate species to ensure that a proposed listing is justified for each species, and reevaluated the relative LPN assigned to each species. We also evaluated the need to emergency list any of these species, particularly species with higher priorities (i.e., species with LPNs of 1, 2, or 3). This review and reevaluation ensures that we focus conservation efforts on those species at greatest risk.

After a thorough review of the available scientific and commercial information, we have determined that the North Cascades Ecosystem of grizzly bear (*Ursus arctos horribilis*) is no longer warranted but precluded for uplisting as information indicates a population is no longer present. A summary of our updated assessment for this species is included under **Petitions to Reclassify Species Already Listed**. We are currently working on species status assessments for five species that are foreign species candidates: Sira curassow (*Pauxi koepckeae*), southern helmeted curassow (*Pauxi unicornis*), fluminense swallowtail butterfly (*Parides ascanius*), Hahnel's Amazonian swallowtail butterfly (*Parides hahneli*), and Harris' mimic swallowtail butterfly (*Mimoides* (syn. *Eurytides*) *lysithous harrisianus*). We intend to make determinations in fiscal year (FY) 2023 whether these five species are endangered, threatened, or not warranted for listing. Therefore, in this CNOR, summaries for these five candidate species are not included under **Findings for Petitioned Candidate Species**, but these species are included in table 5.

In addition to reviewing candidate species since publication of the last CNOR, we have worked on findings in response to petitions to list species, on proposed rules to list species under the Act, and on final listing determinations. Some of these findings and determinations have been completed and published in the *Federal Register*, while work on others is still under way (see

Preclusion and Expeditious Progress, below, for details).

Combined with other findings and determinations published separately from this CNOR, 23 species are now candidates awaiting preparation of a proposed listing rule or “not-warranted” finding. Table 5 (below) identifies these 23 candidate species, along with the 54 species proposed for listing (including 6 species proposed for listing due to similarity of appearance) as of September 30, 2022.

Table 6 (below) lists the changes for species identified in the previous CNOR and includes 12 species identified in the previous CNOR as either proposed for listing or classified as candidates that are no longer in those categories. This includes nine species for which we published a final listing rule, one species for which we published a withdrawal of the proposed listing rule, and one species where we no longer find the population to be warranted but precluded for uplisting due to the population being extirpated.

Petition Findings

The Act provides two mechanisms for considering species for listing. One method allows the Secretary, on the Secretary’s own initiative, to identify species for listing under the standards of section 4(a)(1). The second method provides a mechanism for the public to petition us to add a species to the Lists. As described further in the paragraphs that follow, the CNOR serves several purposes as part of the petition process: (1) In some instances (in particular, for petitions to list species that the Service has already identified as candidates on its own initiative), it serves as the initial petition finding; (2) for candidate species for which the Service has made a warranted-but-precluded petition finding, it serves as a “resubmitted” petition finding that the Act requires the Service to make each year; and (3) it documents the Service’s compliance with the statutory requirement to monitor the status of species for which listing is warranted but precluded, and to ascertain if they need emergency listing.

First, the CNOR serves as an initial 12-month finding in some instances. Under section 4(b)(3)(A) of the Act, when we receive a petition to list a species, we must determine within 90

days, to the maximum extent practicable, whether the petition presents substantial information indicating that listing may be warranted (a “90-day finding”). If we make a positive 90-day finding, we must promptly commence a status review of the species under section 4(b)(3)(A); we must then make, within 12 months of the receipt of the petition, one of the following three possible findings (a “12-month finding”):

(1) The petitioned action is not warranted, in which case we must promptly publish the finding in the *Federal Register*;

(2) The petitioned action is warranted (in which case we must promptly publish a proposed regulation to implement the petitioned action; once we publish a proposed rule for a species, sections 4(b)(5) and 4(b)(6) of the Act govern further procedures, regardless of whether or not we issued the proposal in response to a petition); or

(3) The petitioned action is warranted, but (a) the immediate proposal of a regulation and final promulgation of a regulation implementing the petitioned action is precluded by pending proposals to determine whether any species is endangered or threatened, and (b) expeditious progress is being made to add qualified species to the Lists and to remove from the Lists species for which the protections of the Act are no longer necessary. We refer to this third option as a “warranted-but-precluded finding,” and after making such a finding, we must promptly publish it in the *Federal Register*.

We define “candidate species” to mean those species for which the Service has on file sufficient information on biological vulnerability and threats to support issuance of a proposed rule to list, but for which issuance of the proposed rule is precluded (61 FR 64481; December 5, 1996). The standard for making a species a candidate through our own initiative is identical to the standard for making a warranted-but-precluded 12-month petition finding on a petition to list.

Therefore, all candidate species identified through our own initiative already have received the equivalent of substantial 90-day and warranted-but-precluded 12-month findings. Nevertheless, if we receive a petition to list a species that we have already identified as a

candidate, we review the status of the newly petitioned candidate species and in a CNOR publish specific section 4(b)(3) findings (i.e., substantial 90-day and warranted-but-precluded 12-month findings) in response to the petitions to list these candidate species. We publish these findings as part of the first CNOR following receipt of the petition.

Second, the CNOR serves as a “resubmitted” petition finding. Section 4(b)(3)(C)(i) of the Act requires that when we make a warranted-but-precluded finding on a petition, we treat the petition as one that is resubmitted on the date of the finding. Thus, we must make a 12-month petition finding for each such species at least once a year in compliance with section 4(b)(3)(B) of the Act, until we publish a proposal to list the species or make a final not-warranted finding. We make these annual resubmitted petition findings through the CNOR. To the extent these annual findings differ from the initial 12-month warranted-but-precluded finding or any of the resubmitted petition findings in previous CNORs, they supersede the earlier findings, although all previous findings are part of the administrative record for the new finding, and in the new finding, we may rely upon them or incorporate them by reference as appropriate, in addition to explaining why the finding has changed. We have identified the candidate species for which we received petitions and made a continued warranted-but-precluded finding on a resubmitted petition by the code “C*” in the category column on the left side of table 5, below.

Third, through undertaking the analysis required to complete the CNOR, the Service determines if any candidate species needs emergency listing. Section 4(b)(3)(C)(iii) of the Act requires us to implement a system to monitor effectively the status of all species for which we have made a warranted-but-precluded 12-month finding and to make prompt use of the emergency listing authority under section 4(b)(7) to prevent a significant risk to the well-being of any such species. The CNOR plays a crucial role in the monitoring system that we have implemented for all candidate species by providing notice that we are actively seeking information regarding the status of those species. We review all new information on candidate species as it becomes available, prepare an annual species assessment form that reflects

monitoring results and other new information, and identify any species for which emergency listing may be appropriate. If we determine that emergency listing is appropriate for any candidate, we will make prompt use of the emergency listing authority under section 4(b)(7) of the Act.

A number of court decisions have elaborated on the nature and specificity of information that we must consider in making and describing the petition findings in the CNOR. The CNOR that published on November 9, 2009 (74 FR 57804), describes these court decisions in further detail. As with previous CNORs, we continue to incorporate information of the nature and specificity required by the courts. For example, we include a description of the reasons why the listing of every petitioned candidate species is both warranted and precluded at this time. We make our determinations of preclusion on a nationwide basis to ensure that the species most in need of listing will be addressed first and also because we allocate our listing budget on a nationwide basis. Our preclusion determinations are further based upon our budget for listing activities for non-listed species only, and we explain the priority system and why the work we have accomplished has precluded action on listing candidate species.

In preparing this CNOR, we reviewed the current status of, and threats to, 16 of the 23 current candidate species for which we have received a petition to list where we found the action warranted but precluded and 2 species for which we continue to find uplisting warranted but precluded. We find that the immediate issuance of a proposed rule and timely promulgation of a final rule for each of these species has been, for the preceding months, and continues to be, precluded by higher-priority listing actions. We also find that 1 listed domestic species is no longer warranted but precluded for uplisting due to the population being extirpated. We are currently working on species status assessments for five species that are foreign species candidates: Sira curassow, southern helmeted curassow, fluminense swallowtail butterfly, Hahnel's Amazonian swallowtail butterfly, and Harris' mimic swallowtail butterfly. We intend to make determinations in FY 2023 whether these species are endangered, threatened, or not

warranted for listing. Therefore, in this CNOR, summaries for these five foreign candidate species are not included under **Findings for Petitioned Candidate Species**, but these species are included in table 5, below. A summary for the longfin smelt San Francisco Bay-Delta distinct population segment (DPS) is not included under **Findings for Petitioned Candidate Species** in this CNOR because subsequent to the end of FY 2022, but prior to the publication of this CNOR, our proposal to list the species was published in the *Federal Register* on October 7, 2022 (87 FR 60957). However, this DPS is included in table 5, below.

The immediate publication of proposed rules to list these species was precluded by our work on higher-priority listing actions, listed below, during the period from October 1, 2021, through September 30, 2022. Below, we describe the actions that continue to preclude the immediate proposal and final promulgation of a regulation implementing each of the petitioned actions for which we have made a warranted-but-precluded finding, and we describe the expeditious progress we are making to add qualified species to, and remove species from, the Lists. We will continue to monitor the status of all candidate species, including petitioned species, as new information becomes available to determine if a change in status is warranted, including the need to emergency list a species under section 4(b)(7) of the Act. As described above, under section 4 of the Act, we identify and propose species for listing based on the factors identified in section 4(a)(1)—either on our own initiative or through the mechanism that section 4 provides for the public to petition us to add species to the Lists of Endangered or Threatened Wildlife and Plants.

Preclusion and Expeditious Progress

To make a finding that a particular action is warranted but precluded, the Service must make two determinations: (1) That the immediate proposal and timely promulgation of a final regulation is precluded by pending proposals to determine whether any species is endangered or threatened; and (2) that expeditious progress is being made to add qualified species to either of the Lists and to remove species from the Lists (16 U.S.C. 1533(b)(3)(B)(iii)).

Preclusion

A listing proposal is precluded if the Service does not have sufficient resources available to complete the proposal because there are competing demands for those resources and the relative priority of those competing demands is higher. Thus, in any given fiscal year (FY), multiple factors dictate whether it will be possible to undertake work on a proposed listing regulation or whether promulgation of a proposal is precluded by higher-priority listing actions—(1) the amount of resources available for completing the listing-related function; (2) the estimated cost of completing the proposed listing regulation; and (3) the Service’s workload, along with the Service’s prioritization of the proposed listing regulation, in relation to other actions in its workload.

Available Resources

The resources available for listing-related actions are determined through the annual Congressional appropriations process. In FY 1998 and for each fiscal year since then, Congress has placed a statutory cap on funds that may be expended for the Listing Program (spending cap). This spending cap was designed to prevent the listing function from depleting funds needed for other functions under the Act (for example, recovery functions, such as removing species from the Lists), or for other Service programs (see House Report 105–163, 105th Congress, 1st Session, July 1, 1997). The funds within the spending cap are available to support work involving the following listing actions: Proposed and final rules to add species to the Lists or to change the status of species from threatened to endangered; 90-day and 12-month findings on petitions to add species to the Lists or to change the status of a species from threatened to endangered; annual “resubmitted” petition findings on prior warranted-but-precluded petition findings as required under section 4(b)(3)(C)(i) of the Act; critical habitat petition findings; proposed rules designating critical habitat or final critical habitat determinations; and litigation-related, administrative, and program-management functions (including preparing and allocating budgets, responding to Congressional and public inquiries, and conducting public outreach

regarding listing and critical habitat).

For more than two decades, the size and cost of the workload in these categories of actions have far exceeded the amount of funding available to the Service under the spending cap for completing listing and critical habitat actions under the Act. As we cannot exceed the spending cap without violating the Anti-Deficiency Act (31 U.S.C. 1341(a)(1)(A)), each year we have been compelled to determine that work on at least some actions was precluded by work on higher-priority actions. We make our determinations of preclusion on a nationwide basis to ensure that the species most in need of listing will be addressed first, and because we allocate our listing budget on a nationwide basis. Through the listing cap and the amount of funds needed to complete court-mandated actions within the cap, Congress and the courts have in effect determined the amount of money remaining (after completing court-mandated actions) for listing activities nationwide. Therefore, the funds that remain within the listing cap—after paying for work needed to comply with court orders or court-approved settlement agreements—set the framework within which we make our determinations of preclusion and expeditious progress.

For FY 2022, through the Consolidated Appropriations Act, 2022 (Pub. L. 117–103, March 15, 2022), Congress appropriated \$21,279,000 for all domestic and foreign listing work. For FY 2023, through the Consolidated Appropriations Act, 2023 (Pub. L. 117–328, December 29, 2022), Congress appropriated \$23,398,000 for all domestic and foreign listing work. The amount of funding Congress will appropriate in future years is uncertain.

Costs of Listing Actions

The work involved in preparing various listing documents can be extensive, and may include, but is not limited to: gathering and assessing the best scientific and commercial data available and conducting analyses used as the basis for our decisions; requesting peer and partner review on our analyses that support listing decisions and incorporating those comments, as appropriate; writing and publishing documents; and obtaining, reviewing, and evaluating public comments on proposed rules and incorporating relevant information from those comments into

final rules. The number of listing actions that we can undertake in a given year also is influenced by the complexity of those listing actions; that is, more complex actions generally are more costly. Our practice of proposing to designate critical habitat concurrently with listing domestic species requires additional coordination and an analysis of the economic impacts of the designation, and thus adds to the complexity and cost of our work. Completing all of the outstanding listing and critical habitat actions has for so long required more funding than is available within the spending cap that the Service has developed several ways to prioritize its workload actions and to identify the work it can complete with the available funding for listing and critical habitat actions each year.

Prioritizing Listing Actions

The Service's Listing Program workload is broadly composed of four types of actions, which the Service prioritizes as follows: (1) Compliance with court orders and court-approved settlement agreements requiring that petition findings or listing determinations or critical habitat designations be completed by a specific date; (2) essential litigation-related, administrative, and listing program-management functions; (3) section 4 (of the Act) listing and critical habitat actions with absolute statutory deadlines; and (4) section 4 listing actions that do not have absolute statutory deadlines.

In previous years, the Service received many new petitions, including multiple petitions to list numerous species—in one example, a single petition sought to list 404 domestic species. The emphasis that petitioners placed on seeking listing for hundreds of species at a time through the petition process significantly increased the number of actions within the third category of our workload—actions that have absolute statutory deadlines for making findings on those petitions. In addition, the necessity of dedicating all of the Listing Program funding towards determining the status of 251 candidate species and complying with other court-ordered requirements between 2011 and 2016 added to the number of petition findings awaiting action. Because we are not able to work on all of these at once, the Service's most recent effort to prioritize its workload

focuses on addressing the backlog in petition findings that has resulted from the influx of large multi-species petitions and the 5-year period in which the Service was compelled to suspend making 12-month findings for most of those petitions. The number of petitions awaiting status reviews and accompanying 12-month findings illustrates the considerable extent of this backlog. As a result of the outstanding petitions to list hundreds of species, and our efforts to make initial petition findings within 90 days of receiving the petition to the maximum extent practicable, at the beginning of FY 2023 we had 305 12-month petition findings yet to be completed.

To determine the relative priorities of the outstanding 12-month petition findings, the Service developed a prioritization methodology (methodology) (81 FR 49248; July 27, 2016), after providing the public with notice and an opportunity to comment on the draft methodology (81 FR 2229; January 15, 2016). Under the methodology, we assign each 12-month finding to one of five priority bins: (1) The species is critically imperiled; (2) strong data are already available about the status of the species; (3) new science is underway that would inform key uncertainties about the status of the species; (4) conservation efforts are in development or underway and likely to address the status of the species; or (5) the available data on the species are limited. As a general matter, 12-month findings with a lower bin number have a higher priority than, and are scheduled before, 12-month findings with a higher bin number. However, we make some limited exceptions—for example, we may schedule a lower-priority finding earlier if batching it with a higher-priority finding would generate efficiencies. We may also consider whether there are any special circumstances whereby an action should be moved up (or down) in scheduling. For example, one limitation that might result in divergence from priority order is when the current highest priorities are clustered in a geographic area, such that our scientific expertise at the field office level is fully occupied with their existing workload. We recognize that the geographic distribution of our scientific expertise will in some cases require us to balance workload across geographic areas. Since before Congress first established the spending cap for the Listing Program in 1998, the Listing Program workload has required

considerably more resources than the amount of funds Congress has allowed for the Listing Program. Therefore, it is important that we be as efficient as possible in our listing process.

After finalizing the prioritization methodology, we then applied that methodology to develop multi-year workplans for domestic and foreign species for completing the outstanding status assessments and accompanying 12-month findings, along with other outstanding work such as designating critical habitat and acting on the status of candidate species.

Domestic Species Workplan

The purpose of the National Listing Workplan (Workplan) is to provide transparency and predictability to the public about when the Service anticipates completing specific 12-month findings for domestic species while allowing for flexibility to update the Workplan when new information changes the priorities. In March 2022, the Service released its updated Workplan for addressing the Act's domestic listing and critical habitat decisions for fiscal years 2022-2027. The updated Workplan identified the Service's schedule for addressing all domestic species on the candidate list and conducting 252 status reviews and accompanying 12-month findings by FY 2027 for domestic species that have been petitioned for Federal protections under the Act. The National Listing Workplan is available online at: <https://www.fws.gov/project/national-listing-workplan>.

Foreign Species Workplan

Similar to the National Listing Workplan, the Foreign Species Workplan provides the Service's multi-year schedule for addressing our foreign species listing workload. The Foreign Species Workplan provides transparency and predictability to the public about when the Service anticipates completing specific 12-month findings and candidate species while allowing for flexibility to update the Foreign Species Workplan when new information changes the priorities. In September 2021 the Service released its most recent Foreign Species Workplan for addressing the Act's foreign listing decisions for fiscal years 2021-2026. The Foreign Species Workplan identifies the Service's prioritization for addressing all foreign species on the candidate list and

46 status reviews and accompanying 12-month findings for petitioned species, and identifies which actions we plan to complete by FY 2026. As we implement our Foreign Species Workplan and work on 12-month findings and proposed rules for the highest-priority species, we increase efficiency by preparing multi-species proposals when appropriate, and these may include species with lower priority if they overlap geographically or have the same threats as one of the highest-priority species. The Foreign Species Workplan is available online at:

<https://www.fws.gov/project/foreign-species-listing-workplan>.

For the 12-month findings, consistent with our prioritization methodology, within the five priority bins we determine the relative timing of foreign species actions using sub-ranking considerations, i.e., as tie-breakers for determining relative timing within each of the five bins (see the August 9, 2021, CNOR (86 FR 43474-43476) for a detailed description of tie-breakers). We consider the extent to which the protections of the Act would be able to improve conditions for that species and its habitat relative to the other species within the same bin, and in doing so, we give weight to the following considerations, in order from greater weight to lesser weight.

1. FWS Office of Law Enforcement (OLE) enforcement capacity;
2. Species in trade to or from the United States;
3. Species in trade through U.S. ports (i.e., in-transit or transshipment);
4. Within the United States, interstate trade;
5. Status under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and
6. International Union for Conservation of Nature (IUCN) Red List status.

Prioritization of Domestic and Foreign Species

An additional way in which we determine relative priorities of outstanding actions for species in the section 4 program is application of the listing priority guidelines (48 FR 43098; September 21, 1983; see **Previous CNORs**, above). Proposed rules for listing foreign species, including foreign candidate species, are generally lower in priority than domestic listings

because we generally have more resources and authorities to achieve higher conservation outcomes when listing domestic species. The Service has a responsibility to conserve both domestic and foreign species; however, our choice to dedicate the bulk of our funding cap to domestic actions is a rational one given the likelihood of obtaining better conservation outcomes for domestic species versus foreign species under the Act. The Act makes no distinction between foreign species and domestic species in listing species as endangered or threatened. The protections of the Act generally apply to both listed foreign species and domestic species, and section 8 of the Act provides authorities for international cooperation on foreign species. However, some significant differences in the Service's authorities result in differences in our ability to affect conservation for foreign and domestic species under the Act. The major differences are that the Service has no regulatory jurisdiction over take of a listed species in a foreign country, or of trade in listed species outside the United States by persons not subject to the jurisdiction of the United States (see 50 CFR 17.21). The Service also does not designate critical habitat within foreign countries or in other areas outside of the jurisdiction of the United States (50 CFR 424.12(g)).

Additionally, section 7 of the Act in part requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat, and to enter into consultation with the Service if a Federal action may affect a listed species or its critical habitat. An "action" that is subject to the consultation provisions of section 7(a)(2) is defined in our implementing regulations at 50 CFR 402.02 as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas." In view of this regulatory definition, foreign species are rarely subject to section 7 consultation, apart from consultations for permits issued under the Act. This differs from the considerable benefits section 7 affords to domestic species whose life cycle occurs in whole or in part in the United States, and for which we do designate critical habitat, which are routinely subject to

section 7 consultations and the conservation benefits that result from those.

These differences in the Service's authorities for foreign and domestic species under the Act, including relating to take, critical habitat, and section 7 consultation, means that listing foreign species is likely to have relatively less conservation effect than for domestic species. The protections of the Act through listing are likely to have their greatest conservation effect for foreign species that are in trade to, from, through, or within the United States. The majority (likely 12 out of the 14) of current foreign candidate species are not known to be in trade. Therefore, we made a rational decision to dedicate more resources to listing domestic species.

Additionally, proposed rules for reclassification of threatened species status to endangered species status (uplisting) are generally lower in priority because, as listed species, they are already afforded the protections of the Act and implementing regulations. However, for efficiency reasons, we may choose to work on a proposed rule to reclassify a species to endangered species status if we can combine this with higher-priority work.

Listing Program Workload

The National Listing Workplan that the Service released in 2022 outlined work for domestic species over the period from FY 2022 to FY 2027. The Foreign Species Workplan that the Service released in 2021 outlined work for foreign species over the period from FY 2020 to FY 2026. Tables 1 and 2, below, identify the higher-priority listing actions that we completed through FY 2022 (September 30, 2022), as well as those we have been working on in FY 2022 but have not yet completed. For FY 2022, our workload includes 41 12-month findings or proposed listing actions that are at various stages of completion at the time of this finding. In addition to the actions scheduled in the National Listing Workplan and the Foreign Species Workplan ("Workplans"), the overall Listing Program workload also includes development and revision of regulations required by new court orders or settlement agreements to address the repercussions of any new court decisions, and proposed and final critical habitat designations or revisions for species that have already been listed. The Service's highest priorities for spending

its funding in FY 2022 are actions included in the Workplans and actions required to address court decisions.

Expeditious Progress

As explained above, a determination that listing is warranted but precluded must also demonstrate that expeditious progress is being made to add and remove qualified species to and from the Lists. Please note that in the Code of Federal Regulations, the “Lists” are grouped as one list of endangered and threatened wildlife (see 50 CFR 17.11(h)) and one list of endangered and threatened plants (see 50 CFR 17.12(h)). However, the “Lists” referred to in the Act mean one list of endangered species (wildlife and plants) and one list of threatened species (wildlife and plants). For the purposes of evaluating our expeditious progress, when we refer to the “Lists,” we mean this latter grouping of one list of endangered species and one list of threatened species.

As with our “precluded” finding, the evaluation of whether expeditious progress is being made is a function of the resources available and the competing demands for those funds. As discussed earlier, the FY 2022 appropriations law appropriated \$21,279,000 for all domestic and foreign listing activities.

As discussed below, given the limited resources available for listing, the competing demands for those funds, and the completed work catalogued in the tables below, we find that we are making expeditious progress to add qualified species to the Lists and to remove from the Lists species for which the protections of the Act are no longer necessary.

The work of the Service’s domestic listing and foreign listing programs in FY 2022 (as of September 30, 2022) includes all three of the steps necessary for adding species to the Lists: (1) Identifying species that may warrant listing (including 90-day petition findings); (2) undertaking an evaluation of the best available scientific data about those species and the threats they face to determine whether or not listing is warranted (a status review and, for petitioned species, an accompanying 12-month finding); and (3) adding qualified species to the Lists (by publishing

proposed and final listing rules). We explain in more detail how we are making expeditious progress in all three of the steps necessary for adding qualified species to the Lists (identifying, evaluating, and adding species). Subsequent to discussing our expeditious progress in adding qualified species to the Lists, we explain our expeditious progress in removing from the Lists species that no longer require the protections of the Act.

First, we are making expeditious progress in identifying species that may warrant listing. In FY 2022 (as of September 30, 2022), we completed 90-day findings on petitions to list 8 domestic species.

Second, we are making expeditious progress in evaluating the best scientific and commercial data available about species and threats they face (status reviews) to determine whether or not listing is warranted. In FY 2022 (as of September 30, 2022), we completed 12-month findings for 23 domestic species and 5 foreign species. In addition, we funded and initiated 12-month findings for 27 domestic species and 8 foreign species. Although we did not complete those actions during FY 2022 (as of September 30, 2022), we made expeditious progress towards doing so by initiating and making progress on the status reviews to determine whether adding the species to the Lists is warranted.

Third, we are making expeditious progress in adding qualified species to the Lists. In FY 2022 (as of September 30, 2022), we published final listing rules for 8 domestic species and no foreign species, including final critical habitat designations for 7 of those domestic species and final protective regulations under the Act's section 4(d) for 4 of those domestic species. In addition, we published proposed rules to list an additional 18 domestic species and 5 foreign species (including concurrent proposed critical habitat designations for 5 domestic species and concurrent protective regulations under the Act's section 4(d) for 9 domestic species and 1 foreign species).

Fourth, we are also making expeditious progress in removing (delisting) species, as well as reclassifying endangered species to threatened species status (downlisting). Delisting and

downlisting actions are funded through the recovery line item in the budget of the Endangered Species Program. Thus, delisting and downlisting actions do not factor into our assessment of preclusion; that is, work on recovery actions does not preclude the availability of resources for completing new listing work. However, work on recovery actions does count towards our assessment of making expeditious progress because the Act states that expeditious progress includes both adding qualified species to, and removing qualified species from, the Lists of Endangered and Threatened Wildlife and Plants. In FY 2022 (as of September 30, 2022), we finalized downlisting rules for 5 domestic species with concurrent final protective regulations under the Act’s section 4(d), finalized delisting rules for 3 domestic species, proposed downlisting rules for 2 domestic species (including concurrent protective regulations under the Act’s section 4(d) for 2 domestic species), and proposed delisting rules for 3 domestic species.

Preclusion and Expeditious Progress

The tables below catalog the Service’s progress in FY 2022 (as of September 30, 2022) as it pertains to our evaluation of preclusion and expeditious progress. Table 1 includes completed and published domestic and foreign listing actions; table 2 includes domestic and foreign listing actions funded and initiated in previous fiscal years and in FY 2022 that were not yet complete as of September 30, 2022; and table 3 includes completed and published proposed and final downlisting and delisting actions for domestic and foreign species.

Table 1. Published domestic and foreign listing actions (proposed and final listing and uplisting rules) in FY 2022 (as of September 30, 2022).

Publication Date	Title	Action(s)	<i>Federal Register</i> Citation
10/7/2021	Endangered Species Status for Tiehm's Buckwheat	Proposed Listing—Endangered	86 FR 55775–55789
10/14/2021	Endangered Species Status for Bog Buck Moth	Proposed Listing—Endangered	86 FR 57104–57122
11/9/2021	Threatened Species Status With Section 4(d) Rule for Alligator Snapping Turtle	Proposed Listing—Threatened with a Section 4(d) Rule	86 FR 62434–62463
11/9/2021	Threatened Species Status with Section 4(d) Rule for Egyptian Tortoise	Proposed Listing—Threatened with a Section 4(d) Rule	86 FR 62122–62137

11/10/2021	Threatened Species Status With a Section 4(d) Rule for Bracted Twistflower and Designation of Critical Habitat	Proposed Listing—Threatened with a Section 4(d) Rule and Critical Habitat	86 FR 62668–62705
11/16/2021	Threatened Species Status With Section 4(d) Rule for Atlantic Pigtoe and Designation of Critical Habitat	Final Listing—Threatened with a Section 4(d) Rule and Critical Habitat	86 FR 64000–64053
11/23/2021	12-Month Finding for Pascagoula Map Turtle; Threatened Species Status With Section 4(d) Rule for Pearl River Map Turtle; and Threatened Species Status for Alabama Map Turtle, Barbour's Map Turtle, Escambia Map Turtle, and Pascagoula Map Turtle Due to Similarity of Appearance With a Section 4(d) Rule	Proposed Listing—Threatened with a Section 4(d) Rule and a Not-Warranted 12-month Finding	86 FR 66624–66659
12/21/2021	Threatened Species Status With Section 4(d) Rule for Hermes Copper Butterfly and Designation of Critical Habitat	Final Listing—Threatened with a Section 4(d) Rule and Critical Habitat	86 FR 72394–72433
12/22/2021	Threatened Species Status With Section 4(d) Rule for Cactus Ferruginous Pygmy-Owl	Proposed Listing—Threatened with a Section 4(d) Rule	86 FR 72547–72573
12/28/2021	Foothill Yellow-Legged Frog; Threatened Status With Section 4(d) Rule for Two Distinct Population Segments and Endangered Status for Two Distinct Population Segments	Proposed Listing—Threatened with Section 4(d) Rule; Endangered	86 FR 73914–73945
1/5/2022	Threatened Species Status With Section 4(d) Rule for Panama City Crayfish and Designation of Critical Habitat	Final Listing—Threatened with a Section 4(d) Rule and Critical Habitat	87 FR 546–581
1/25/2022	Endangered Species Status for Sacramento Mountains Checkerspot Butterfly	Proposed Listing—Endangered	87 FR 3739–3753
2/8/2022	12-Month Finding for the Sonoran Desert Tortoise	12-month Petition Finding	87 FR 7077–7079
2/8/2022	90-Day Findings for Three Species	90-day Petition Findings	87 FR 7079–7083
2/15/2022	Endangered Species for Prostrate Milkweed and Designation of Critical Habitat	Proposed Listing—Endangered with Critical Habitat	87 FR 8509–8543
2/28/2022	Endangered Species Status for Peppered Chub and Designation of Critical Habitat	Final Listing—Endangered with Critical Habitat	87 FR 11188–11220
3/3/2022	Threatened Species Status With Section 4(d) Rule for Western Fanshell and “Ouachita” Fanshell and Designation of Critical Habitat	Proposed Listing—Threatened with a Section 4(d) Rule and Critical Habitat	87 FR 12338–12384

3/14/2022	Three Species Not Warranted for Listing as Endangered or Threatened Species*	12-month Petition Findings	87 FR 14227–14232
3/22/2022	Threatened Species Status With Section 4(d) Rule for Sand Dune Phacelia and Designation of Critical Habitat	Proposed Listing—Threatened with Section 4(d) Rule and Critical Habitat	87 FR 16320–16363
3/23/2022	Endangered Species Status for Northern Long-Eared Bat	Proposed Listing—Endangered	87 FR 16442–16452
4/5/2022	Lower Colorado River Distinct Population Segment of Roundtail Chub (<i>Gila robusta</i>)	12-month Petition Findings	87 FR 19657–19660
4/7/2022	Endangered Species Status for the Dixie Valley Toad	Proposed Listing—Endangered	87 FR 20374–20378
4/13/2022	Threatened Species Status for Streaked Horned Lark With Section 4(d) Rule	Final Listing—Threatened with a Section 4(d) Rule	87 FR 21783–21812
5/3/2022	Review of Species That Are Candidates for Listing as Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions	CNOR and 12-Month Petition Findings	87 FR 26152–26178
5/4/2022	Threatened Species Status With Section 4(d) Rule for the Silverspot Butterfly	Proposed Listing—Threatened with a Section 4(d) Rule	87 FR 26319–26337
5/25/2022	Endangered Species Status for Russian, Ship, Persian, and Stellate Sturgeon	Proposed Listing—Endangered	87 FR 31834–31854
6/6/2022	90-Day Finding for Three Petitions To List the Yellowstone Bison	90-day Petition Finding	87 FR 34228–34231
6/10/2022	Endangered Species Status for Arizona Eryngo and Designation of Critical Habitat	Final Listing—Endangered with Critical Habitat	87 FR 35431–35459
6/16/2022	Endangered Species Status for Marron Bacora and Designation of Critical Habitat	Final Listing—Endangered with Critical Habitat	87 FR 36225–36248
6/22/2022	Threatened Species Status With a Section 4(d) Rule for Ocmulgee Skullcap and Designation of Critical Habitat	Proposed Listing—Threatened with a Section 4(d) Rule and Critical Habitat	87 FR 37378–37428
7/6/2022	Endangered Species Status for the Canoe Creek Clubshell and Designation of Critical Habitat	Final Listing—Endangered with Critical Habitat	87 FR 40115–40138
7/6/2022	Three Species Not Warranted for Listing as Endangered or Threatened Species*	12-month Petition Findings	87 FR 40172–40175
8/18/2022	Endangered Species Status for Magnificent Ramshorn and Designation of Critical Habitat	Proposed Listing—Endangered	87 FR 50804–50824

8/23/2022	90-Day Findings for Four Species	90-day Petition Findings	87 FR 51635–51639
9/14/2022	Endangered Species Status for Tricolored Bat	Proposed Listing—Endangered	87 FR 56381–56393
9/27/2022	Threatened Species Status with Section 4(d) Rule for Florida Keys Mole Skink and Designation of Critical Habitat	Proposed Listing—Threatened with a Section 4(d) Rule and Critical Habitat	87 FR 58648–58703

*Batched 12-month findings may include findings regarding listing and delisting petitions. The total number of 12-month findings reported in this assessment of preclusion and expeditious progress pertains to listing petitions only.

Table 2. Domestic and foreign listing actions (proposed and final listings and uplistings) funded and initiated in previous FYs and in FY 2022 that are not yet published as of September 30, 2022.

Species	Action
Amur sturgeon	Final listing determination
Brandege's wild buckwheat*	12-month finding
Brawleys Fork crayfish	12-month finding
Bushy whitlow-wort	12-month finding
Chowanoke crayfish*	12-month finding
Cisco milk-vetch*	12-month finding
Columbia oregonian snail*	12-month finding
Cooper's cave amphipod	12-month finding
Cumberland moccasinshell	12-month finding
Dolphin & Union Caribou*	Final listing determination
Emperor penguin*	Final listing determination
Gopher tortoise*	Proposed listing determination or not-warranted finding
Glowing indian-paintbrush	12-month finding
Gray wolf (western populations)	12-month finding
Great Basin silverspot	12-month finding
Green floater	12-month finding
Isely milk-vetch*	12-month finding
Key ring-necked snake*	12-month finding
Lassics lupine*	12-month finding
Longfin smelt (San Francisco Bay-Delta DPS)*	Proposed listing determination or not-warranted finding
Louisiana pigtoe*	12-month finding
Miami cave crayfish	12-month finding
Minute cave amphipod	12-month finding
Morrison's cave amphipod	12-month finding
Navasota false foxglove	12-month finding
Oblong rocksnail	12-month finding

Pristine crayfish	12-month finding
Rim rock crowned snake*	12-month finding
Rye Cove cave isopod*	12-month finding
Shasta salamander	12-month finding
Southern elktoe	12-month finding
Tennessee clubshell	12-month finding
Tennessee pigtoe	12-month finding
Texas heelsplitter*	12-month finding
Texas kangaroo rat	12-month finding
Tharp's blue-star	12-month finding
Toothless blindcat	12-month finding
Western spadefoot	12-month finding
Widemouth blindcat	12-month finding
Yazoo crayfish	12-month finding

*Denotes species for which a 12-month finding or listing determination has published subsequent to the end of FY 2022 (after September 30, 2022)

Table 3. Published domestic and foreign recovery actions (proposed and final downlistings and delistings) in FY 2022 (as of September 30, 2022).

Publication Date	Title	Action(s)	<i>Federal Register Citation</i>
10/18/2021	Reclassification of the Humpback Chub From Endangered to Threatened With a Section 4(d) Rule	Final Rule—Downlisting with Section 4(d) Rule	86 FR 57588–57610
11/17/2021	Removal of the Okaloosa Darter From the Federal List of Endangered and Threatened Wildlife	Proposed Rule—Delisting	86 FR 64158–64176
2/3/2022	Removing San Benito Evening-Primrose (<i>Camissonia benitensis</i>) From the Federal List of Endangered and Threatened Plants	Final Rule—Delisting	87 FR 6046–6063
2/3/2022	Reclassification of Morro Shoulderband Snail From Endangered to Threatened With Section 4(d) Rule	Final Rule—Downlisting with Section 4(d) Rule	87 FR 6063–6077
2/17/2022	Reclassification of Stephens' Kangaroo Rat From Endangered To Threatened With a Section 4(d) Rule	Final Rule—Downlisting with Section 4(d) Rule	87 FR 8967–8981
3/3/2022	Reclassification of the Relict Darter From Endangered to Threatened With a Section 4(d) Rule	Proposed Rule—Downlisting with Section 4(d) Rule	87 FR 12056–12073

3/31/2022	Reclassification of the Endangered <i>Layia carnosa</i> (Beach Layia) to Threatened With Section 4(d) Rule	Final Rule—Downlisting with Section 4(d) Rule	87 FR 18722–18739
4/28/2022	Removing Nelson's Checker-Mallow From the Federal List of Endangered and Threatened Plants	Proposed Rule—Delisting	87 FR 25197–25209
6/23/2022	Reclassification of <i>Mitracarpus polycladus</i> From Endangered to Threatened With a Section 4(d) Rule	Proposed Rule—Downlisting with Section 4(d) Rule	87 FR 37476–37494
7/6/2022	Reclassification of Smooth Coneflower From Endangered To Threatened With a Section 4(d) Rule	Final Rule—Downlisting with Section 4(d) Rule	87 FR 40100–40115
7/13/2022	Removal of the Puerto Rican Boa From the List of Endangered and Threatened Wildlife	Proposed Rule—Delisting	87 FR 41641–41655
8/24/2022	Removing <i>Adiantum vivessii</i> from the Federal List of Endangered and Threatened Plants	Final Rule—Delisting	87 FR 51928–51932
8/24/2022	Removing the Braken Bat Cave Meshweaver From the List of Endangered and Threatened Wildlife	Final Rule—Delisting	87 FR 51925–51928

Another way that we have been expeditious in making progress in adding and removing qualified species to and from the Lists is that we have made our actions as efficient and timely as possible, given the requirements of the Act and regulations and constraints relating to workload and personnel. We are continually seeking ways to streamline processes or achieve economies of scale, such as batching related actions together for publication. For example, in FY 2021, we published a single proposed delisting rule for 23 species due to extinction (86 FR 54298; September 30, 2021). Given our limited budget for implementing section 4 of the Act, these efforts also contribute toward our expeditious progress in adding and removing qualified species to and from the Lists.

Findings for Petitioned Candidate Species

For 16 candidates, we continue to find that listing is warranted but precluded as of the date of publication of this document. However, we are working on thorough reviews of all

available data regarding seven of these species and expect to publish either proposed listing rules or 12-month not-warranted findings prior to making the next annual CNOR. In the course of preparing proposed listing rules or not-warranted petition findings, we continue to monitor new information about these species' status so that we can make prompt use of our authority under section 4(b)(7) of the Act in the case of an emergency posing a significant risk to any of these species.

Below are updated summaries for the 16 petitioned candidates for which we published findings under section 4(b)(3)(B) of the Act and did not change the LPN. We note that species-specific discussions below are summaries. More detailed information is available in the associated species assessment forms, including information on relevant developments with respect to the species since publication of the last CNOR.

In accordance with section 4(b)(3)(C)(i), we treat any petitions for which we made warranted-but-precluded 12-month findings within the past year as having been resubmitted on the date of the warranted-but-precluded finding. We are making continued warranted-but-precluded 12-month findings on the petitions for these species.

Monarch Butterfly

The petition that the Service received in 2014 was for listing a subspecies of the monarch butterfly (*Danaus plexippus plexippus*). After careful examination of the literature and consultation with experts, there is no clearly agreed-upon definition of potential subspecies of *Danaus plexippus* or where the geographic borders between these subspecies might exist. In our 12-month finding published in the *Federal Register* on December 17, 2020 (85 FR 81813), we determined that the monarch butterfly (*Danaus plexippus*) warranted listing as an endangered or threatened species under the Act, but that listing was precluded by higher-priority listing actions.

Adults of the monarch butterfly are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. Monarch butterflies in eastern and western North America represent the ancestral origin for the species worldwide. They exhibit

long-distance migration and overwinter as adults at forested locations in Mexico and California. These overwintering sites provide protection from the elements and moderate temperatures, as well as nectar and clean water sources located nearby. Adult monarch butterflies feed on nectar from a wide variety of flowers. Reproduction is dependent on the presence of milkweed, the sole food source for larvae. Monarch butterflies are found in 90 countries, islands, or island groups. Monarch butterflies have become naturalized at most of these locations outside of North America since 1840. The populations outside of eastern and western North America (including southern Florida) do not exhibit long-distance migratory behavior.

The primary threats to the monarch's biological status include loss and degradation of habitat from conversion of grasslands to agriculture, widespread use of herbicides, logging/thinning at overwintering sites in Mexico, senescence and incompatible management of overwintering sites in California, urban development, drought, exposure to insecticides, and effects of climate change. Conservation efforts are addressing some of the threats from loss of milkweed and nectar resources across eastern and western North America and management at overwintering sites in California; however, these efforts and the existing regulatory mechanisms are not sufficient to protect the species from all of the threats.

The North American migratory populations are the largest relative to the other rangewide populations, accounting for more than 90 percent of the worldwide number of monarch butterflies. Based on the past annual censuses, the eastern and western North American migratory populations have been generally declining over the last 20 years. The western North American population has a much higher risk of extinction due to current threats than the eastern North American population. At the current and projected population numbers, both the eastern and western populations have become more vulnerable to catastrophic events (for example, extreme storms at the overwintering habitat). Also, under different climate change scenarios, the number of days and the area in which monarch butterflies will be exposed to unsuitably high

temperatures will increase markedly. We know little about population sizes or trends of most of the populations outside of the eastern and western North American populations (except for Australia, which has an estimate of just over 1 million monarch butterflies). However, the potential loss of the North American migratory populations from these identified threats would substantially reduce the species' resiliency, representation, and redundancy. Because the magnitude of threats is moderate to low and those threats are imminent, we assigned an LPN of 8 for the monarch butterfly. The LPN also reflects that we are evaluating the monarch butterfly at the species level.

Rio Grande Cutthroat Trout

Rio Grande cutthroat trout (*Oncorhynchus clarkii virginalis*) is one of 14 subspecies of cutthroat trout found in the western United States. Populations of this subspecies are in New Mexico and Colorado in drainages of the Rio Grande, Pecos, and Canadian Rivers. Although once widely distributed in connected stream networks, Rio Grande cutthroat trout populations now occupy approximately 11 percent of historical habitat, and the populations are fragmented and isolated from one another. The majority of populations occur in high-elevation streams. We were petitioned to list Rio Grande cutthroat trout as an endangered or threatened species under the Act in 1998. On May 14, 2008, we published in the *Federal Register* (73 FR 27900) our finding that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species. After completing a species status assessment, on October 1, 2014, we published in the *Federal Register* (79 FR 59140) a 12-month petition finding that the Rio Grande cutthroat trout was not warranted for listing as endangered or threatened under the Act.

On July 29, 2016, the Center for Biological Diversity (CBD) and Taylor McKinnon filed a complaint in the Colorado District Court challenging the merits of our 2014 "not warranted" finding on a petition to list the Rio Grande cutthroat trout (*CBD, et al. v. Bernhardt, et al.*, No. 1:16-cv-01932-MSK-STV (D. Colo.)). On September 26, 2019, the court partially vacated and

remanded the 2014 “not warranted” finding. We are currently updating the species status assessment and have added the Rio Grande cutthroat trout to our workplan for FY 2025. Because the magnitude of threats is moderate to low and those threats are imminent, we assigned an LPN of 9 to the Rio Grande cutthroat trout.

Jamaican Kite Swallowtail

The Jamaican kite swallowtail (*Protographium (Eurytides) marcellinus*) is a small blue-green and black butterfly endemic to Jamaica. This butterfly is regarded as Jamaica’s most endangered butterfly. On January 10, 1994, we received a petition from Ms. Dee E. Warenycia to list seven foreign swallowtail butterflies, including the Jamaican kite swallowtail (*Protographium (Eurytides) marcellinus*), under the Act. On May 10, 1994, we published in the *Federal Register* (59 FR 24117) a 90-day finding in which we announced that the petition to add the seven species of foreign swallowtail butterflies contained substantial information indicating that listing may be warranted for all species. On December 7, 2004, we published in the *Federal Register* (69 FR 70580) our finding that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The Jamaican kite swallowtail is restricted to limestone forests; breeding populations only occur in rare, dense stands of its only known larval host plant, black lancewood (*Oxandra lanceolata*). Five known sites have supported colonies of the Jamaican kite swallowtail. Two of the sites may be extirpated, the status of one site is uncertain, and two sites are viable with strong numbers in some years. There is no known estimate of population size, and numbers of mature adults are low in most years; however, occasionally there are strong flight seasons in which adult densities are relatively higher.

The primary threat to the Jamaican kite swallowtail is habitat loss and fragmentation. Forests were cleared for agriculture and timber extraction, and more recently for sapling cutting for yam sticks, fish pots, or charcoal. Additional threats include mining for limestone that is used for roadbuilding and bauxite production that is an important economic activity, and charcoal-

making also carries the risk of fire. Only around 8 percent of the total land area of Jamaica is natural forest with minimal human disturbance. Collection and trade of the species occurred in the past. Currently, however, this threat may be negligible because of heavy fines under the Jamaican Wildlife Protection Act. Predation from native predators, including spiders, the Jamaican tody (*Todus todus*), and praying mantis (*Mantis religiosa*), may be adversely affecting the Jamaican kite swallowtail, especially in the smaller subpopulations. In years with large populations of spiders, very few swallowtail larvae survive. Additionally, this species may be at greater risk of extinction due to natural events such as hurricanes and effects from climate change.

Since 2001, the Jamaican kite swallowtail has been protected under the Jamaican Wildlife Protection Act. The species is also included in their National Strategy and Action Plan on Biological Diversity. The two strongest subpopulations occur in protected areas, although habitat destruction within these areas continues. Since 1985, the Jamaican kite swallowtail has been categorized on IUCN's Red List as vulnerable, but the assessment is marked as "needs updating." This species is not included in the Appendices to CITES or the European Union Wildlife Trade Regulations.

In the May 3, 2022, CNOR (87 FR 26152), the Jamaican kite swallowtail was assigned an LPN of 2. After reevaluating the factors affecting the Jamaican kite swallowtail, we have determined that no change in LPN is warranted. Only five small subpopulations of the species are known, and as few as two of these subpopulations may presently be viable. Therefore, an LPN of 2 remains valid to reflect imminent threats of high magnitude.

Kaiser-i-Hind Swallowtail

Kaiser-i-Hind swallowtail (*Teinopalpus imperialis*) is a large, ornate and colorful swallowtail butterfly that displays sexual dimorphism (sexes differ in size and coloration). The species is native to the Himalayan regions of Bhutan, China, India, Laos, Myanmar, Nepal, Thailand, and Vietnam. On January 10, 1994, we received a petition from Ms. Dee E. Warenycia

to list seven different butterfly species, including the Kaiser-i-Hind swallowtail butterfly, under the Act. On May 10, 1994, we published in the *Federal Register* (59 FR 24117) a 90-day finding in which we announced that the petition to add the seven species of foreign butterflies contained substantial information indicating that listing may be warranted for all species. On December 7, 2004, we published in the *Federal Register* (69 FR 70580) our finding that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The Kaiser-i-Hind swallowtail has a large range and was likely more widespread historically; however, it is currently restricted to higher elevations, 1,500 to 3,050 meters (m) (4,921 to 10,000 feet (ft)) above sea level, in the foothills of the Himalayan Mountains and other mountainous regions further east. The species prefers undisturbed (primary) broad-leaved-evergreen forests or montane deciduous forests. Specific details on locations or population status are not readily available, and despite widespread distribution, populations are described as being local and never abundant.

Habitat destruction negatively affects this species. Comprehensive information on the rate of degradation of Himalayan forests containing the Kaiser-i-Hind swallowtail is not available, but ongoing habitat loss is consistently reported as one of the primary threats to the species. In China and India, the Kaiser-i-Hind swallowtail populations are affected by habitat modification and destruction due to commercial and illegal logging, as well as clearing for agriculture in India. In Nepal, the species is affected by habitat disturbance and destruction resulting from mining, wood collection for use as fuel, deforestation, collection of fodders and fiber plants, forest fires, invasion of bamboo species into the oak forests, agriculture, and grazing animals. In Vietnam, the forest habitat is reportedly declining. Additionally, collection for commercial trade is also regarded as a threat to the species. The Kaiser-i-Hind swallowtail is highly valued and has been collected and traded despite various prohibitions. Although it is difficult to assess the potential impacts from collection, the removal of individuals from the wild

in combination with other stressors contributes to local extirpations.

In China, the species is protected by the Law of the People's Republic of China on the Protection of Wildlife. In India, the species is listed on Schedule II of the Indian Wildlife Protection Act. In Thailand, all butterflies in the genus *Teinopalpus*, including the Kaiser-i-Hind swallowtail, are listed under Thailand's Wild Animal Reservation and Protection Act. In Vietnam, the species is listed as "vulnerable" in the 2007 Vietnam Red Data Book and is reported to be the most valuable of all butterflies in Vietnam. In 2006, the species was listed on Vietnam's Schedule IIB of Decree No. 32 on management of endangered, precious, and rare forest plants and animals. Since 1996, the Kaiser-i-Hind swallowtail has been categorized on the IUCN Red List as lower risk/near threatened, but IUCN indicates that this assessment needs updating. The Kaiser-i-Hind swallowtail has been included in CITES Appendix II since 1987. Additionally, the Kaiser-i-Hind swallowtail is listed on Annex B of the European Union Wildlife Trade Regulations; species listed on Annex B require an import permit.

In the May 3, 2022, CNOR (87 FR 26152), the Kaiser-i-Hind swallowtail was assigned an LPN of 8. After reevaluating the threats to this species, we have determined that no change in its LPN of 8 is warranted. The species has a wide distribution although populations are local and never abundant. Habitat loss and collection are expected to continue in the future. Therefore, an LPN of 8 remains valid to reflect imminent threats of moderate magnitude.

Black-Backed Tanager

The black-backed tanager (*Tangara peruviana*) is a vibrant and patterned bird endemic to the coastal Atlantic Forest region of southeastern Brazil. The species is known to historically occur in the coastal states of Rio de Janeiro, São Paulo, Paraná, and Santa Catarina, Brazil. On May 6, 1991, we received a petition from the International Council for Bird Preservation to list 53 different bird species, including the black-backed tanager, under the Act. On December 16, 1991, we published in the *Federal Register* (56 FR 65207) a 90-day finding in which we announced that the petition to add 53 species of foreign birds contained substantial information

indicating that listing may be warranted for all species. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The black-backed tanager is generally restricted in range and is associated with sand forest “restinga” habitat, which is a coastal component habitat of the greater Atlantic Forest complex of Brazil. The black-backed tanager is generally considered not rare within suitable habitat, with periodic local fluctuations in numbers owing to seasonal movements. The species is described as a regional migrant and is one of just a few tanagers known to migrate seasonally within the coastal Atlantic Forest region of Brazil. The best available information indicates the range is severely fragmented, consisting of approximately 316,000 square kilometers (km²) of breeding range with a slightly larger nonbreeding range of 377,000 km². The population size is estimated between 2,500 and 10,000 mature adults. Both the habitat and species population are decreasing.

The primary factor affecting this species is the rapid and widespread loss and fragmentation of habitat, mainly due to urban expansion and beachfront development. Much of the species’ suitable habitat in Rio de Janeiro and Paraná has been destroyed. As much as 88 to 95 percent of the area historically covered by tropical forests within the Atlantic Forest biome has been lost or severely degraded as the result of human activities. Intact lowland forest, restinga, and mangrove habitat used by resident black-backed tanagers on the northern part of Santa Catarina Island (in the state of Santa Catarina) is unprotected, making the species vulnerable to extirpation on the island as development looms. Sea-level rise may alter the regional vegetation and structure and exacerbate the threat of habitat loss from ongoing coastal development.

The black-backed tanager is classified as vulnerable by the IUCN. The species is also listed as vulnerable in Brazil and protected by law. It is not included in the Appendices to

CITES, although it has infrequently been illegally sold in the pet trade.

In the May 3, 2022, CNOR (87 FR 26152), we assigned the black-backed tanager an LPN of 8. After reevaluating the available information, we have determined that no change to an LPN is warranted. The magnitude of threats to the black-backed tanager is moderate, based on its likely decreasing population size and widespread and ongoing habitat loss, although a recent evaluation of its population size is lacking. Small portions of the species' range occur in six protected areas, but these areas are not effectively protected. Therefore, an LPN of 8 remains valid for this species to reflect imminent threats of moderate magnitude.

Bogotá Rail

The Bogotá rail (*Rallus semiplumbeus*) is a medium-sized, nonmigratory bird that occurs in the eastern Andean mountain range of Colombia at elevations from 2,500–4,000 m (8,202–13,123 ft) above sea level. On May 6, 1991, we received a petition from the International Council for Bird Preservation to list 53 foreign bird species, including the Bogotá rail, as endangered or threatened species under the Act. On December 16, 1991, we published in the *Federal Register* (56 FR 65207) a 90-day finding in which we announced that the petition to add 53 species of foreign birds that contained substantial information indicating that listing may be warranted for all species. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The rail is found in savanna and páramo (high-elevation habitats above tree line) marshes surrounding Bogotá, Colombia, on the Ubaté-Bogotá Plateau. The species relies on specific vegetation in wetland and lakeshore habitats at high elevations in the eastern flank of the eastern Andean mountain range of Colombia. The bird requires vegetation associated with these habitats for breeding and foraging. As of 2016, the population was estimated between 1,000 and 2,500 individuals, and the estimated extent of the resident/breeding habitat was 11,200 km² (4,324 square miles (mi²)) and shrinking.

The primary threat to the rail is habitat loss and degradation of wetlands. Suitable habitat for the Bogotá rail occurs around the most populated area in Colombia with approximately 11 million people in the greater Bogotá metropolitan area. Wetlands in the area only cover approximately 3 percent of their historical extent. Although portions of the Bogotá rail's range occur in protected areas such as Chingaza National Park and Carpanta Biological Reserve, most savanna wetlands are virtually unprotected. Ongoing threats to remaining major wetlands include encroachment of human infrastructure and agriculture that causes loss of habitat and altered water levels, soil erosion, eutrophication caused by untreated effluent and agrochemicals, hunting, wildfire, and incidental spread of invasive species.

The Bogotá rail is listed as endangered by IUCN. The species is not known to be in international trade and is not included in the Appendices to CITES.

In the May 3, 2022, CNOR (87 FR 26152), the Bogotá rail was assigned an LPN of 2. After reevaluating the threats to this species, we have determined that no change in the LPN for the species is warranted. The species' range is very small, fragmented, and rapidly contracting because of ongoing widespread habitat loss and degradation of wetlands. Therefore, an LPN of 2 remains valid for this species to reflect imminent threats of high magnitude.

Brasília Tapaculo

The Brasília tapaculo (*Scytalopus novacapitalis*) is a small, gray, ground-dwelling bird with limited flight ability. It is endemic to the Cerrado in Brazil, the largest tropical savanna in the world with a mosaic of habitats composed mostly of savannas and patches of dry forests. On May 6, 1991, we received a petition from the International Council for Bird Preservation to list 53 different bird species, including the Brasília tapaculo, as endangered or threatened species under the Act. On December 16, 1991, we published in the *Federal Register* (56 FR 65207) a 90-day finding in which we announced that the petition to add 53 species of foreign birds contained substantial information indicating that listing may be warranted for all species. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that

listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The Brasília tapaculo's core habitat is dense, narrow strips of swampy gallery forests at elevations of approximately 800–1,000 m (2,625–3,281 ft). The species' range is located within six protected areas within the Cerrado and is not found outside protected areas. The Brasília tapaculo is described as rare, and the population size is unknown. However, the population is assumed to be declining because of the ongoing decline of the species' gallery forest habitat.

The primary threat to the Brasília tapaculo is ongoing habitat loss and fragmentation from agricultural activities. The Cerrado is the largest, most diverse, and possibly most threatened tropical savanna in the world. Land is converted for intensive grazing and mechanized agriculture, mostly for soybean production. Agriculture causes direct effects to gallery forests from wetland drainage and diversion of water for irrigation, as well as burning to create space. The species' habitat has been less directly affected by clearing for agriculture than the surrounding Cerrado. However, it is unclear how much core gallery forest has been destroyed because of habitat conversion for agriculture. Additionally, effects from climate change may also be negatively altering the Cerrado and reducing the amount of specialized habitat for the species.

The IUCN lists the species as endangered, and the Brazilian Red List assessed the species as endangered, because the species' small, fragmented range is continuing to decline in area and quality. International trade is not a significant threat to the species, and the species is not included in the Appendices to CITES.

In the May 3, 2022, CNOR (87 FR 26152), we assigned the Brasília tapaculo an LPN of 2. After reevaluating the available information, we have determined that no change to an LPN is warranted. The species only occurs in a handful of small, protected areas, and is reported as rare. Habitat conversion is ongoing. Therefore, an LPN of 2 remains valid for this species to reflect imminent threats of high magnitude.

Chatham Oystercatcher

The Chatham oystercatcher (*Haematopus chathamensis*) is the rarest oystercatcher in the world, endemic to the four islands of the Chatham Island group 860 kilometers (km) (534 miles (mi)) east of mainland New Zealand. On November 28, 1980, we received a petition from the International Council for Bird Preservation to list 79 bird species, of which 19 were species on U.S. territory and 60 were foreign species, including Chatham oystercatcher, as endangered or threatened species under the Act. On May 12, 1981, we published in the *Federal Register* (46 FR 26464) a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for 77 of the 79 bird species, including the Chatham oystercatcher. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

Chatham oystercatchers are restricted to the coasts, mainly occurring along rocky shores, including wide volcanic rock platforms, and occasionally on sandy or gravelly beaches. Humans inhabit the two largest islands, Chatham and Pitt Islands, while South East and Mangere Islands are uninhabited nature reserves. Isolated pairs may also breed on other smaller islands in the archipelago. The population of the species is approximately 250 mature individuals. The Chatham oystercatcher uses its long, sturdy bill to hammer open mollusks from rocky shores and to probe and peck for worms and other small invertebrates in sand, gravel, or tidal debris. Pairs occupy their breeding and feeding territories all year, and females lay clutches of 1 to 3 eggs in scrape nests (shallow-rimmed depressions in soil or vegetation) on sandy beaches, or among rocks above the shoreline. Mean longevity has been estimated at 7.7 years, and the oldest banded bird lived more than 30 years.

Predation of eggs and chicks (and to a lesser extent, predation of adults) is likely the primary threat to Chatham oystercatcher. Mangere and South East Islands are free of all mammalian predators; nonnative mammalian predators inhabit Chatham and Pitt Islands. Feral cats are the most common predator of oystercatcher eggs. Trampling of nests by livestock (sheep

and cattle) and humans has been noted on beaches. Additionally, nonnative Marram grass (*Ammophila arenaria*) has altered the sand dunes and leaves few open nesting sites.

Consequently, the Chatham oystercatcher is forced to nest closer to shore where nests are vulnerable to high tides and storm surges. Up to 50 percent of eggs have been lost because of storms or high tides. Projected rise in sea level associated with climate change will likely increase storm frequency and severity, putting at risk most shorelines that the Chatham oystercatcher relies on for nesting habitat.

The species has experienced a three-fold increase in its population since the first reliable census was conducted in 1987. Most of this increase occurred during a period of intensive management, especially predator control, from 1998 through 2004. Some of these efforts continue at a reduced level because of a lack of resources but are still effective at reducing trampling, predation, and loss of nests/eggs. The Chatham Island Oystercatcher Recovery Plan guides conservation actions for the species. The New Zealand Department of Conservation lists the Chatham oystercatcher as nationally critical, and it is protected under New Zealand's Wildlife Act. It is classified as endangered on the IUCN Red List, and the species is not included in the Appendices to CITES and not known to be in international trade.

In the May 3, 2022, CNOR (87 FR 26152), the Chatham oystercatcher was assigned an LPN of 8. After reevaluating the available information, we have determined that no change in the LPN is warranted. Although the population appears to have stabilized, it remains very small (approximately 250 mature individuals), and occupied breeding habitat is also small (fewer than 800 hectares (1,977 acres)). Active management has been instrumental in maintaining stable population levels, but the species continues to face threats to its nests and habitat. Therefore, an LPN of 8 is valid for this species to reflect imminent threats of moderate magnitude.

Gizo White-eye

The Gizo white-eye (*Zosterops luteirostris*) is a passerine (perching) bird described as “warbler-like.” It is endemic to the small island of Ghizo within the Solomon Islands in the

South Pacific Ocean, east of Papua New Guinea. On November 28, 1980, we received a petition from the International Council for Bird Preservation to list 79 bird species, of which 19 were species on U.S. territory and 60 were foreign species, including the Gizo white-eye, as endangered or threatened species under the Act. On May 12, 1981, we published in the *Federal Register* (46 FR 26464) a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for 77 of the 79 bird species, including the Gizo white-eye. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The Gizo white-eye prefers old-growth forest patches that cover approximately 1 km² (0.4 mi²) of Ghizo Island. The species has been observed in forest edge, regrowth and mature secondary forest. Limited information is available to determine whether sustainable populations can exist outside of forested habitats. The population size of the Gizo white-eye is approximately 250 to 999 mature individuals in an estimated area of 35 km² (14 mi²).

Habitat loss is the primary threat to the species. Logging, conversion of forest for agricultural purposes, and local resource extraction for firewood are main the cause for loss of old-growth forested and secondary growth forests. Human population growth in the Solomon Islands has contributed to development on Ghizo Island, such as construction of temporary housing. Additionally, catastrophic events, such as the 2007 tsunami, degraded forested areas that were found less likely to support the species even 5 years later in 2012. Sea-level rise in the future and an increase in storms could result in coastal flooding and erosion, saltwater intrusion, and damage to inland habitats.

The IUCN Red List classifies this species as endangered. It is not included in the Appendices to CITES, and this species is not known to be in international trade.

In the May 3, 2022, CNOR (87 FR 26152), the Gizo white-eye was assigned an LPN of 2. After reevaluating the available information, we find that no change in the LPN is warranted.

The species has a small population size and suitable habitat is declining. Therefore, an LPN of 2 remains valid for this species to reflect imminent threats of high magnitude.

Helmeted Woodpecker

The helmeted woodpecker (*Celeus galeatus*) is a small, nonmigratory woodpecker native to regions of southern Brazil, eastern Paraguay, and northeastern Argentina. It is one of the rarest woodpeckers in the Americas. On November 28, 1980, we received a petition from the International Council for Bird Preservation (ICBP) to list 79 bird species, of which 19 were species on U.S. territory and 60 were foreign species. Subsequently, we received another petition from ICBP requesting the addition of another 53 foreign bird species, including helmeted woodpecker, as endangered or threatened species under the Act. On December 16, 1991, we published in the *Federal Register* (56 FR 65207) a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for the 53 bird species, including the helmeted woodpecker. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species. At the time of the petition, the helmeted woodpecker (*Celeus galeatus*) was classified as *Drycopus galeatus*. We recognize the helmeted woodpecker in the genus *Celeus* in 2021, and recognize the species as *C. galeatus* and treat *D. galeatus* and *Hylatomus galeatus* as synonyms.

Helmeted woodpeckers prefer mature (old-growth) trees in tropical and subtropical semi-deciduous forests as well as in mixed deciduous coniferous forests in the southern Atlantic Forest up to elevations of 1,000 m (3,280 ft). The species typically forages in the mid-story of the tree canopy pecking at wet bark and rotten wood. Its diet is not well known, but it has been observed eating insect larvae, ants, berries, and small fruit. The species seems to favor nesting cavities in dead or decaying trees. A portion of the nest cavities used by helmeted woodpeckers have partly covered openings that may help to conceal the cavities from predators.

The primary threat to the species is habitat loss, degradation, and fragmentation, which

includes loss of nesting cavities. The Atlantic Forest biome has lost 88 to 95 percent of the tropical forests because of human activities. Currently, less than 1 percent of the remaining Atlantic Forest is primary forest preferred by the helmeted woodpecker. The species occurs in 17 protected areas throughout its range, although selective logging and other activities continue to degrade the habitat.

The helmeted woodpecker is listed as endangered in Brazil and as vulnerable by the IUCN. The species is not included in the Appendices to CITES and not known to be in international trade.

In the May 3, 2022, CNOR (87 FR 26152), we assigned the helmeted woodpecker an LPN of 8. After reevaluating the available information, we find that no change in the LPN for the species is warranted. The species is rare, and although the species may have a wider distribution, loss of primary Atlantic Forest habitat is ongoing. Therefore, an LPN of 8 remains valid to reflect imminent threats of moderate magnitude.

Lord Howe Island Pied Currawong

The Lord Howe Island pied currawong (*Strepera graculina crissalis*) is a large, crow-like bird that is endemic to Lord Howe Island, off the coast of New South Wales, Australia. On November 28, 1980, we received a petition from the International Council for Bird Preservation to list 79 bird species, of which 19 were occurring on U.S. territory and 60 were foreign species, including Lord Howe Island pied currawong, as endangered or threatened species under the Act. On May 12, 1981, we published in the *Federal Register* (46 FR 26464) a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for 77 of the 79 bird species, including the Lord Howe Island pied currawong. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The Lord Howe Island pied currawong is a subspecies of the pied currawong, and occurs

throughout the island, although it is most numerous in mountainous regions. The subspecies breeds in rainforests and palm forests, particularly along streams, and descends to forage in lowlands. It is omnivorous, eating fruits, seeds, snails, insects, and small vertebrates such as rats and mice, small birds, and bird eggs and nestlings. Lord Howe Island pied currawongs are bold and inquisitive birds that readily adapt to the presence of humans and can occupy areas around human settlements, in addition to natural habitats. They are territorial during the breeding season, with some territories defended in the non-breeding seasons. The average territory size is between 4.4 to 7.3 hectares (11 to 18 acres).

The primary threats to the subspecies are the introduction of nonnative rodents to the island ecosystem and the effects of climate change. The Lord Howe Island pied currawong has persisted among invasive black rats (*Rattus rattus*). However, because the currawong often preys on small rodents and are naturally curious, it was subject to nontarget poisoning during an islandwide rat-baiting program. Around half the population was taken into captivity to protect them during the rodent eradication efforts, and they have subsequently been released back into the wild. Additionally, the effects of climate change may affect the cloud layer on the island's mountaintops, resulting in drying of the forest where the subspecies gets about half of its food, and creating a food shortage. The small, isolated population of currawongs on Lord Howe Island is at risk from loss of genetic diversity and stochastic (random) environmental events. However, this population may have always been small and may not have the capacity for additional growth.

The Australian Government owns Lord Howe Island. Approximately 75 percent of the island, plus all outlying islets and rocks within the Lord Howe Island group, is protected under the Permanent Park Preserve. The Lord Howe Island Biodiversity Management Plan is the formal recovery plan for threatened species and communities of the Lord Howe Island Group. Following the removal of poison bait traps in 2020, monitoring is underway across the island to see if it has become rodent-free. The New South Wales Threatened Species Conservation Act of

1995 lists the Lord Howe Island pied currawong as vulnerable, as does Australia's Environment Protection and Biodiversity Conservation Act List of Threatened Fauna. The subspecies is not listed on the IUCN Red List, is not included in the Appendices to CITES, and is not known to be in international trade.

In the May 3, 2022, CNOR (87 FR 26152), the Lord Howe Island pied currawong was assigned an LPN of 6. After reevaluating the threats to the Lord Howe Island pied currawong, we have determined that no change in the LPN for the subspecies is warranted. The small population faces risks from nontarget poisoning from rodent control, although significant conservation efforts have been implemented. Therefore, based on the best information available, an LPN of 6 remains valid to reflect nonimminent threats of high magnitude.

Okinawa Woodpecker

The Okinawa woodpecker (*Dendrocopos noguchii*) is a relatively large woodpecker endemic to Okinawa Island, Japan, and one of the world's rarest woodpecker species. Much of the mature forest that supports the species is located within the Jungle Warfare Training Center (formerly known as the Northern Training Area or Camp Gonsalves), part of the U.S. Marine Corps installation on Okinawa Island. On November 28, 1980, we received a petition from the International Council for Bird Preservation to list 79 bird species, of which 19 were occurring on U.S. territory and 60 were foreign species, including the Okinawa woodpecker, as endangered or threatened species under the Act. On May 12, 1981, we published in the *Federal Register* (46 FR 26464) a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for 77 of the 79 bird species, including the Okinawa woodpecker. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species. At the time of the petition, the Okinawa woodpecker (*Dendrocopos noguchii*) was classified as *Sapheopipo noguchii*. We recognized the Okinawa woodpecker in the genus *Dendrocopos* in 2009, and

recognize the species as *D. noguchii* and treat *S. noguchii* as a synonym (74 FR 40540, August 12, 2009, p. 40548).

The Okinawa woodpecker's main breeding areas lie in the northern part of Okinawa Island, including well-forested areas of Yambaru, a region of approximately 300 km² (116 mi²). Population surveys have found that the number of Okinawa woodpeckers detected at Yambaru sites increases as the area of hardwood forest increases. The species feeds on large arthropods, notably beetle larvae, spiders, moths, and centipedes, as well as fruit, berries, seeds, acorns, and other nuts. Both males and females search dead and live tree trunks and bamboo in old-growth forests, but males also forage on the ground, sweeping away leaf-litter and probing for soil-dwelling prey. The Okinawa woodpecker nests in the decaying heartwood of large trees that are at least 25 centimeters (9.8 inches) in diameter and 3 to 10 m (9.8 to 33 ft) off the ground, which are typically found in mature forests that are at least 30 years old.

The primary threats to the Okinawa woodpecker are deforestation in the Yambaru region and introduced predators such as feral dogs and cats, small Indian mongoose (*Urva auropunctata*), and Japanese weasel (*Mustela itatsi*). As of the mid 1990s, only 40 km² (15 mi²) of suitable habitat was available for the Okinawa woodpecker, mostly in the Jungle Warfare Training Center, which is relatively undisturbed. Much of the remaining old-growth forest in Yambaru is protected by Japanese legislation, and forests have been regrowing following a reduction in logging in recent decades. While forest regrowth is reaching ages that meet minimum suitability requirements for Okinawa woodpeckers and protected areas have improved the habitat, suitable habitat for the species remains fragmented and old-growth forest is scarce within the species' range. Mongoose control fences were erected in 2005 and 2006, and efforts to eradicate mongoose from the Yambura forest are ongoing and appear to be effective. Complete eradication of mongooses from the Yambaru region is targeted for 2027. Efforts to control feral cats have been less successful.

The Japanese Government established Yambaru National Park in 2016. In July 2021, the

United Nations Educational, Scientific, and Cultural Organization (UNESCO) added Amami-Oshima Island; Tokunoshima Island; the northern part of the main Okinawa Island, which contains Yambaru National Park; and Iriomote Island to the list of natural World Heritage sites. The species is listed as critically endangered in the Red List of Threatened Birds in Japan and is protected from acquisition and transfer under Japan's wildlife protection system. The Okinawa woodpecker is not included in the Appendices to CITES and is not known to be in international trade.

In the May 3, 2022, CNOR (87 FR 26152), the Okinawa woodpecker was assigned an LPN of 2. After reevaluating the best available information, we have determined that no change in LPN for the species is warranted. The population is very small, and threats to its old-growth habitat and predation by nonnative mammals are ongoing. The Japanese government is actively taking steps to address the threats of habitat loss and predation, but the threats remain high in magnitude due to the species' restricted range, small population size, and historical habitat loss. Therefore, an LPN of 2 remains valid for this species to reflect imminent threats of high magnitude.

Orange-fronted Parakeet

The orange-fronted parakeet (*Cyanoramphus malherbi*) is the rarest parakeet in New Zealand and the remaining naturally occurring colonies are restricted to three valleys on the South Island in the Canterbury Mountains. Captive-bred orange-fronted parakeets have been translocated to four predator-free islands, as well as Brook Waimārama Sanctuary on the South Island. On November 28, 1980, we received a petition from the International Council for Bird Preservation to list 79 bird species, of which 19 were occurring on U.S. territory and 60 were foreign species, including orange-fronted parakeet, as endangered or threatened species under the Act. On May 12, 1981, we published in the *Federal Register* (46 FR 26464) a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for 77 of the 79 bird species, including the orange-fronted parakeet. On May

21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

Orange-fronted parakeet populations on New Zealand's South Island inhabit subalpine mature beech forests (*Nothofagus* spp.), making their nests within natural cavities of these trees. Orange-fronted parakeets rely heavily on beech seeds as a major component of their diet, but also feed on a range of plant material including buds, sprouts, fruits, blossoms, leaves, ferns, and grasses; they also eat invertebrates such as aphids and caterpillars. Breeding is linked with the irregular seeding of beech trees. During mast years, in which seed production levels are high, parakeet numbers can increase substantially.

The primary threats affecting the species on the mainland are predation by nonnative mammals (rats and stoats (*Mustela erminea*)), as well as habitat destruction due to deforestation. Numbers of nonnative mammals spike during mast years, due to abundant food sources, and thus orange-fronted parakeets are particularly vulnerable to predation in those years. Habitat loss and degradation has historically affected large areas of native forest on the mainland. Removal of mature beech trees with nest cavities has increased competition with other native parakeets for nest sites. Trade of this species is not known to be a threat.

The New Zealand Department of Conservation (NZDOC) initiated a captive-breeding program and established small populations on four predator-free islands, one of which is self-sustaining. Another population has been introduced to a predator-free wildlife sanctuary with suitable beech forest habitat on the South Island. The species was uplisted from nationally endangered to nationally critical by the NZDOC in 2016; it is protected under New Zealand's Wildlife Act and is listed as critically endangered on the IUCN's Red List. The orange-fronted parakeet is included in Appendix II to CITES.

In the May 3, 2022, CNOR (87 FR 26152), the orange-fronted parakeet was assigned an LPN of 8. After reevaluating the threats to the orange-fronted parakeet, we have determined that

no change in LPN for the species is warranted. The current population is small, and the species' distribution is limited. Nonnative predators and loss of suitable habitat continue to threaten the species. The NZDOC is actively aiding the recovery of the species. Therefore, an LPN of 8 remains valid to reflect imminent threats of moderate magnitude.

Takahē

The takahē (*Porphyrio hochstetteri*) is the largest extant rail in the world. The species is flightless, native to the South Island of New Zealand, and present on the North Island, other offshore islands, and Kahurangi National Park due to reintroduction and conservation efforts. On November 28, 1980, we received a petition from the International Council for Bird Preservation to list 79 bird species, of which 19 were occurring on U.S. territory and 60 were foreign species, including the takahē, as endangered or threatened species under the Act. On May 12, 1981, we published in the *Federal Register* (46 FR 26464) a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for 77 of the 79 bird species, including the takahē. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The takahē was once widespread in the forest and grassland ecosystems of the South Island. Since the mid-1990s, the species was present in a relatively small area of the Murchison Mountains. In their relict range, takahē are largely herbivorous, feeding on tussocks (clumps of long grass that are thicker and longer than the grass growing around them). In the winter, the birds move into forested valleys, where their major food source is the rhizome of thousand leaved ferns (*Hypolepis millefolium*). In introduced populations at secure sites, takahē exhibit more generalist behavior, eating fallen fruits, small reptiles, and chicks of other bird species. The species is largely solitary and will not form dense colonies, even in optimal habitat, and will aggressively defend their territories, which can be up to 100 hectares (247 acres).

Primary threats to the takahē include hunting, competition from nonnative species,

disease outbreaks in the captive population, and nonnative predators such as stoats and weasels. Stoats and weasels appear to be the most significant predator to takahē. The NZDOC is actively managing populations through conservation efforts that include captive-rearing and reintroductions, predator control, management of grassland habitats, and adaptive research. The conservation efforts have slowly increased the number of populations and the species' overall population size.

New Zealand considers the takahē a nationally vulnerable species, and it is protected under New Zealand's Wildlife Act. The takahē is listed as endangered on the IUCN Red List. The species is not known to be in international trade, and the species is not included in the Appendices to CITES.

In the May 3, 2022, CNOR (87 FR 26152), the takahē was assigned an LPN of 8. After reevaluating the threats to the takahē, we have determined that no change in LPN for the species is warranted. The takahē has a small population size and limited range. The NZDOC is actively managing threats to aid in the recovery of the species. Therefore, the LPN remains at 8 to reflect imminent threats of low to moderate magnitude.

Yellow-browed Toucanet

The yellow-browed toucanet (*Aulacorhynchus huallagae*) is a rare bird of the toucan family that occurs in the Andes Mountains in Peru. On May 6, 1991, we received a petition from the International Council for Bird Preservation to list 53 different bird species, including the yellow-browed toucanet, under the Act. On December 16, 1991, we published in the *Federal Register* (56 FR 65207) a 90-day finding in which we announced that the petition to add 53 species of foreign birds contained substantial information indicating that listing may be warranted for all species. On May 21, 2004, we published in the *Federal Register* (69 FR 29353) our resubmitted petition findings that listing the species was warranted but precluded by higher-priority actions, and we added the entity to our list of candidate species.

The yellow-browed toucanet relies on humid montane forests on the eastern slope of the

Andes in north-central Peru, at elevations of 2,000–2,600 m (6,562–8,530 ft). The species currently occupies three small locations. Habitat is dominated by tall *Clusia* (*Clusia* spp.) trees, where the species forages in the canopy for fruit and seeds and uses cavities in the trees to nest. The species is most frequently seen in pairs but is occasionally found in small groups of three to four individuals.

Deforestation for livestock, agriculture, timber, and gold mining appears to be the primary threat to the viability of the yellow-browed toucanet. Habitat loss and destruction from deforestation for agriculture have been widespread in the region. Given the inherent threats to small populations (e.g., loss of genetic diversity via genetic drift, stochastic environmental events), continued habitat loss and degradation will exacerbate the risk to the species.

The species is listed as endangered in the IUCN Red List. The species is not included in the Appendices of CITES and is not known to be in international trade.

In the May 3, 2022, CNOR (87 FR 26152), the yellow-browed toucanet was assigned an LPN of 2. After reevaluating the available information, we find that no change in the LPN is warranted. The estimated population is small within a restricted range. The magnitude of threats to the habitat remains high, and its population is likely declining. Therefore, an LPN of 2 remains valid for this species to reflect imminent threats of high magnitude.

Colorado Delta Clam

The Colorado Delta clam (*Mulinia modesta*; junior synonym = *M. coloradoensis*) is a relatively large, light-colored estuarine bivalve that was once very abundant at the head of the Gulf of California in the Colorado River estuary. The species currently occurs in the upper, northern, and central portions of the Gulf of California, and is capable of living in salinities ranging from brackish (mixture of salt and fresh water) to full seawater. In March 2012, the Colorado Delta clam became a candidate species through the Arizona Ecological Services field office (FWS 2012, entire). A 12-month finding published in the *Federal Register* on April 25, 2013, determined that the species warrants protection, but was precluded from listing at the time

(78 FR 24604).

The species inhabits shallow, muddy waters of the coast and requires adequate substrate and water salinity to successfully breed and develop. The range of the species is relatively large, although densities are significantly lower than they were historically.

We are not aware of the total population covering the entire range of the species. The historical population of the Colorado Delta clam in the upper Gulf was estimated to be at least 5 billion individuals, accounting for 84–95 percent of all bivalve mollusks in the upper Gulf. However, after decades of dam building on the Colorado River and its tributaries, the Colorado Delta clam is estimated to be 6 percent as abundant in the upper Gulf as it was before dam construction began. Environmental changes to the estuary associated with reduced river flow include increased salinity, decreased sediment load, decreased input of naturally derived nutrients, and elimination of the spring/summer flood. From the 1990s until 2017, 0 percent of the Colorado River flowed into the Gulf. Since 2017, 2 percent of the river flow has reached the Gulf of California. Low flows are expected to continue and worsen as climate-change-induced drought reduces river flow.

A binational agreement with Mexico requires the United States to invest in water conservation, habitat restoration, and scientific monitoring projects in the delta and release approximately 2 percent of natural flow through 2026. The clam will likely benefit from ongoing efforts to conserve other species and their habitats within the greater Gulf of California, e.g., the totoaba (*Totoaba macdonaldi*) and the vaquita porpoise (*Phocoena sinus*). Portions of the species' range occur within two protected areas that are part of the UNESCO Biosphere Reserve Program and are owned and managed by the Mexican Government.

In the May 3, 2022, CNOR (87 FR 26152), the Colorado Delta clam was assigned an LPN of 8. After reevaluating the threats to this species, we have determined that no change in its LPN of 8 is warranted. The threat of habitat loss and degradation in the Colorado Delta region is ongoing. However, this threat appears to be affecting the clam in upper Gulf of California and

not throughout remainder of its range. Therefore, an LPN of 8 remains valid to reflect imminent threats of moderate magnitude.

Petitions To Reclassify Species Already Listed

We previously made warranted-but-precluded findings on petitions seeking to reclassify threatened species to endangered status for delta smelt (*Hypomesus transpacificus*), grizzly bear (*Ursus arctos horribilis*), and northern spotted owl (*Strix occidentalis caurina*). Because these species are already listed under the Act, they are not candidates for listing and are not included in table 5, below. Below, we provide updated summaries for these species previously found to be warranted but precluded for uplisting.

This document and associated species assessment forms constitute the findings for the resubmitted petitions to reclassify the delta smelt and northern spotted owl. Summaries of our updated assessments for these species are provided below. We find that reclassification to endangered status for the delta smelt and northern spotted owl are currently warranted but precluded by work identified above (see **Findings for Petitioned Candidate Species**, above). One of the primary reasons that the work identified above is considered to have higher priority is that these species are currently listed as threatened, and therefore already receive certain protections under the Act. We also find that reclassification to endangered status for the grizzly bear is no longer warranted. Therefore, the grizzly bear in the North Cascades ecosystem (NCE) will remain a threatened species. For the delta smelt, grizzly bear, and northern spotted owl, those protections are set forth in our regulations at 50 CFR 17.31 and, by reference, 50 CFR 17.21. It is therefore unlawful for any person, among other prohibited acts, to take (i.e., to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such activity) a delta smelt or northern spotted owl, subject to applicable exceptions.

Other protections that currently apply to these threatened species include those under section 7(a)(2) of the Act, whereby Federal agencies must insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered or

threatened species.

Northern Spotted Owl

On June 26, 1990, we published in the *Federal Register* (55 FR 26114) a final rule listing the northern spotted owl (*Strix occidentalis caurina*) as a threatened species. On August 21, 2012, we received a petition dated August 15, 2012, from the Environmental Protection Information Center (EPIC) requesting that the northern spotted owl be listed as an endangered species pursuant to the Act. On April 10, 2015, we published a 90-day finding (80 FR 19259), in which we announced that the petition presented substantial information indicating that reclassification may be warranted for the northern spotted owl and that our status review would also constitute our 5-year status review for the species. On December 15, 2020, we published a 12-month finding in the *Federal Register* (85 FR 81144) in which we stated that reclassification of the northern spotted owl from threatened to endangered was warranted but precluded by higher-priority actions. On May 3, 2022, a warranted-but-precluded finding for this taxon was included in a CNOR in the *Federal Register* (87 FR 26152).

The northern spotted owl is the largest of three subspecies of spotted owls, and inhabits structurally complex forests from southwestern British Columbia through Washington and Oregon, and into northern California. The historical range of the northern spotted owl included most mature forests or stands throughout the Pacific Northwest, from southwestern British Columbia to as far south as Marin County, California. The current range of the northern spotted owl is smaller than the historical range, as the northern spotted owl is extirpated or very uncommon in certain areas such as southwestern Washington and British Columbia.

The northern spotted owl inhabits structurally complex forests, from southwestern British Columbia through Washington and Oregon and into northern California. Northern spotted owls rely on older forested habitats because such forests contain the structures and characteristics required for nesting, roosting, and foraging. The northern spotted owl is relatively long-lived, has a long reproductive life span (6–9 years, Loschl 2008, p. 107), invests significantly in parental

care, and exhibits high adult survivorship relative to other North American owls (Forsman et al. 1984, entire; Gutiérrez et al. 1995, p. 5). Northern spotted owl diets vary across owl territories, years, seasons, geographical regions, and forest type (Forsman et al. 2001, pp. 146–148; 2004, pp. 217–220). Home-range sizes of the northern spotted owl vary geographically, generally increasing from south to north, which is likely a response to differences in habitat quality including structural complexity of forest conditions and availability of prey (55 FR 26114; June 26, 1990). Within the home range, there is typically a smaller area of concentrated activity (approximately 20 percent of the home range), often referred to as the core area (Bingham and Noon 1997, pp. 133–135). Successful juvenile dispersal may depend on locating unoccupied suitable habitat in close proximity to other occupied sites (LaHaye et al. 2001, pp. 697–698). Habitat requirements for nesting and roosting are nearly identical. However, nesting habitat is most often associated with a high incidence of large trees with various deformities or large snags suitable for nest placement. Foraging habitat is the most variable of all habitats used by territorial northern spotted owls, and is closely tied to the prey base. Foraging habitat generally has attributes similar to those of nesting/roosting habitat, but foraging habitat may not always support successful nesting pairs (Service 1992, pp. 22–25). Dispersal habitat is essential to maintaining stable populations by providing connectivity for owls filling territorial vacancies when resident northern spotted owls die or leave their territories, and by providing adequate gene flow across the range of the subspecies.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the northern spotted owl, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the northern spotted owl's biological status include lag effects of past habitat loss, continued timber harvest, wildfire, and incursion of the nonnative barred owl (which is currently the stressor with the largest negative impact on northern spotted owls). On non-Federal lands, State regulatory

mechanisms have not prevented the continued decline of nesting/roosting and foraging habitat; the amount of northern spotted owl habitat on these lands has decreased considerably over the past three decades, including in geographic areas where Federal lands are lacking. On Federal lands, the Northwest Forest Plan has reduced habitat loss and allowed for the development of new northern spotted owl habitat, and the 2016 revised resource management plans for Bureau of Land Management lands in western Oregon are expected to do the same; however, the combined effects of climate change, high-severity wildfire, and past management practices are changing forest ecosystem processes and dynamics, and the expansion of barred owl populations is altering the capacity of intact habitat to support northern spotted owls.

Therefore, we continue to find reclassification of the northern spotted owl as an endangered species under the Act is warranted and retain an LPN of 3. This priority number indicates the magnitude of threat is high and those threats are imminent. The magnitude of threats is considered high because the barred owl has expanded throughout the entire range of the northern spotted owl, outcompeting northern spotted owl for resources and altering the capacity of intact habitat to support northern spotted owl. Furthermore, the combined effects of climate change, high-severity wildfire, and past management practices are changing forest ecosystem processes and dynamics (including patterns of wildfires and insect and forest disease outbreaks) to a degree greater than anticipated in the NWFP; these changes are likely to lead to greater stress on northern spotted owl populations. Threats are ongoing and therefore imminent because competition from the barred owl is already significantly impacting the northern spotted owl and there are no conservation measures currently in place that have demonstrated success at alleviating this threat at a regional scale. We note that an LPN of 3 does not connote that uplisting the species to endangered is a high priority for the Service. Proposed rules to reclassify threatened species to endangered are a lower priority than listing currently unprotected species (i.e., candidate species), since species currently listed as threatened are already afforded the protection of the Act and implementing regulations.

A detailed discussion of the basis for this finding can be found in our northern spotted owl species assessment (see **ADDRESSES**, above), as well as in our 12-month finding published on December 15, 2020, in the *Federal Register* (85 FR 81144), in which we found that reclassification of the northern spotted owl from threatened to endangered was warranted but precluded by higher-priority actions.

Delta Smelt

The following summary is based on information contained in our files and the April 7, 2010, 12-month finding published in the *Federal Register* (75 FR 17667); see that 12-month finding for additional information on why reclassification to endangered is warranted but precluded. In our 12-month finding, we determined that a change in status of the delta smelt (*Hypomesus transpacificus*) from threatened to endangered was warranted, although precluded by other high-priority listings. The primary rationale for reclassifying delta smelt from threatened to endangered was the significant declines in species abundance that have occurred since 2001, and the continuing and unabated downward trend in all delta smelt cohorts after 2011 supports that finding. The 2015–2020 results from all four of the surveys analyzed in the review have been the lowest ever recorded for the delta smelt. Delta smelt abundance, as indicated by the Fall Midwater Trawl (FMWT) survey, was exceptionally low between 2004 and 2010, increased during the wet year of 2011, and decreased again to very low levels at present. The last three FMWT surveys (2018–2020) did not detect a single delta smelt, resulting in an abundance index of 0. The latest 2021 Spring Kodiak Trawl (SKT) survey resulted in an abundance index of 0. Abundance estimates for this year’s adult spawning stock based on the SKT and the enhanced delta smelt monitoring surveys were the lowest estimates on record with 0 and 267 fish, respectively.

The primary threats to the delta smelt are direct entrainments by State and Federal water export facilities, reduction of suitable habitat through summer and fall increases in salinity and water clarity resulting from decreases in freshwater flow into the estuary, and effects from

introduced species. Ammonia in the form of ammonium may also be a significant threat to the survival of the delta smelt. Additional potential threats are predation by striped bass (*Morone saxatilis*), largemouth bass (*Micropterus salmoides*), and inland silversides (*Menidia beryllina*); contaminants; climate change; and small population size. We have identified a number of existing regulatory mechanisms that provide protective measures that affect the stressors acting on the delta smelt. Despite these existing regulatory mechanisms and other conservations efforts, the stressors continue to act on the species such that it is warranted for uplisting under the Act.

As a result of our analysis of the best scientific and commercial data available, we have retained the recommendation of uplisting the delta smelt to an endangered species. We have assigned an LPN of 2, based on the imminent, high magnitude threats faced by the species. The magnitude of the threats is high because the threats occur rangewide and result in mortality or significantly reduce the reproductive capacity of the species. The threats are imminent because they are ongoing and, in some cases (e.g., nonnative species), considered irreversible. Thus, we are maintaining an LPN of 2 for this species.

We note that an LPN of 2 does not connote that uplisting the species to endangered is a high priority for the Service. Since the delta smelt's current classification as threatened and the blanket 4(d) rule that has prescribed protections for the species since it was listed already provide the species the protections afforded by the Act, uplisting the species to endangered status will not substantively increase protections for the delta smelt, but rather more accurately classifies the species given its current status.

Grizzly Bear, North Cascades Ecosystem

The grizzly bear (*Ursus arctos horribilis*) was listed as a threatened species in the conterminous 48 States in 1975 (40 FR 31734, July 28, 1975). Since 1990, we have received and reviewed five petitions requesting a change in status for the North Cascades grizzly bear population in Washington (55 FR 32103, August 7, 1990; 56 FR 33892, July 24, 1991; 57 FR 14372, April 20, 1992; 58 FR 43856, August 18, 1993; 63 FR 30453, June 4, 1998). In response

to these petitions, we determined that the North Cascades Ecosystem (NCE) grizzly bear population warranted a change to endangered status. We have continued to find that these petitions are warranted but precluded through our annual CNOR process. However, we noted in our CNOR for FY 2021 (87 FR 26152; May 3, 2022) that based on a limited number of grizzly bear observations in the past few decades, the NCE may no longer contain a population. We now find that the NCE does not contain a grizzly bear population based on: (1) the amount of search effort without finding any evidence of grizzly bears or a confirmed population; (2) a limited number of grizzly bear detections in the NCE in the past few decades; and (3) the time since the last confirmed detection (1996).

The greater NCE constitutes a large area of contiguous grizzly bear habitat that spans the international border between the United States and Canada but is relatively isolated from grizzly bear populations in other parts of the two countries (Lyons et al. 2018, entire; Service 2022, p. 4). Natural recolonization by females is unlikely in the near future due to the low numbers of bears in nearby populations and the highly fragmented landscape (Proctor et al. 2004, pp. 1113–1114; NPS and Service 2017, p. 36; Service 2022, p. 55); however, there are at least three grizzly bear populations within the long-distance dispersal range of males (67–176 km; 42–109 mi) (Service 2022, p. 55). The U.S. portion of the ecosystem extends across the crest of the Cascade Range from the temperate rainforests of the west side to the dry ponderosa pine forests and sage-steppe on the east side, and comprises one of the most intact wildland areas in the contiguous United States. Historical records indicate that grizzly bears once occurred throughout the greater NCE (Rine et al. 2018, entire; Rine et al. 2020, entire). A grizzly bear habitat evaluation was conducted from 1986 to 1991 in response to recommendations made in our 1982 nationwide Grizzly Bear Recovery Plan. That habitat evaluation, along with a subsequent report by the Interagency Grizzly Bear Committee (IGBC) technical committee review team, concluded that the U.S. portion of the NCE contained sufficient habitat quality to maintain and recover a grizzly bear population (Servheen et al. 1991, entire; Almack et al. 1993, entire). A more recent model

combining habitat and population dynamics indicated the U.S. portion of the NCE is capable of supporting a grizzly bear population of approximately 280 bears (Lyons et al. 2018, pp. 28–29).

Previous studies have compiled reports of grizzly bears in the NCE and provided estimates of grizzly bear abundance. Sullivan (1983, entire) summarized 233 contemporary and historical reports of grizzly bears. An additional 33 reports of grizzly bear were documented from 1859–1982 and 153 reports from 1983–1991, and 20 of these reports were classified as “highly reliable” (Almack et al. 1993, entire). From 1989–1991, remote cameras and traps were set in locations where there were recent and relatively reliable sightings but did not detect grizzly bears (Almack et al. 1993, p. 13). Nevertheless, based on their review of reliable reports, Almack et al. (1993, p. 21) concluded that a small number of grizzly bears likely persisted in the U.S. portion of the NCE in the early 1990s. In the British Columbia (B.C.), Canada, portion of the NCE, sightings and supplementation of grizzly bears from other areas led biologists to estimate the number of grizzly bears to be 17–23 individuals (Gyug 1998, p. 9).

Since the 1990s, there have been numerous surveys for bears and other carnivores in the NCE. Several of these surveys were designed specifically to attract and detect grizzly bears using scented lures and snares that collect hair for DNA extraction. Hair-snare surveys in the NCE that focused on black bears and grizzly bears were conducted from 1999–2000, covering approximately 10 percent of the U.S. portion of the NCE and distributed in prime bear habitat or areas with previous detections (Romain-Bondi et al. 2004, entire). Additional hair-snare surveys were conducted from 2008–2011 (Long et al. 2013, entire), and 2014–2019 (W.L. Gaines 2022, pers. comm.). These efforts were focused largely on remote locations and the highest quality bear habitat (as indicated by a 70 percent success in detecting black bears with cameras and at hair snares) and covered about 25 percent of the U.S. portion of the NCE (Gaines et al. 2019, p. 3). Based on their success in detecting black bears and success others have experienced in detecting grizzly bears using similar methods (e.g., Poole et al. 2001, entire; Romain-Bondi et al. 2004, entire; Sawaya et al. 2012, entire), their methods afforded a reasonably high probability of

detecting a grizzly bear if it were present in the sampled area (Gaines et al. 2019, p. 3). No grizzly bears were detected in the U.S. portion of the NCE during any of these surveys from 1999–2019.

In addition to hair-snare studies, many trail-camera surveys for grizzly bears and various forest and montane carnivores have not detected grizzly bears in the U.S. portion of the NCE (e.g., Christophersen 2006, pp. 5–8; Baum et al. 2018, p. 16; King et al. 2020, pp. 712–714; Whiles 2021, pp. 19–22; J. Ransom 2022, pers. comm.). For example, one study that included the NCE and the Kettle Mountains of northeastern Washington, reported 47,620 camera-nights of effort over two summers, using 650 cameras without any confirmed detections of a grizzly bear (King et al. 2020, p. 712). In addition to these formal camera surveys, recreationists and workers in the NCE backcountry represent a substantial amount of additional informal search effort that has not resulted in a confirmed observation of a single grizzly bear within the U.S. portion of the NCE for the last 26 years.

There have been only three confirmed detections of grizzly bears in the greater NCE, which includes Canada, in the past 10 years. All three detections occurred in B.C. but may comprise only two individuals (Rine et al. 2018, p. 41). The last confirmed grizzly bear sighting in the B.C. portion of the NCE was in 2015, near the East Gate of Manning Park, Canada, approximately 14.5 km (9 mi) from the U.S.–Canada border. There has been no confirmed evidence of grizzly bears within the U.S. portion of the NCE since 1996, when an individual grizzly bear was observed on the southeastern side of Glacier Peak within the Glacier Peak Wilderness Area. The most recent direct evidence of reproduction in the U.S. portion of the ecosystem was a confirmed observation of a female and cub on upper Lake Chelan in 1991 (Almack et al. 1993, p. 34). We cannot completely rule out the possibility of occasional transient grizzly bears or relictual individuals persisting in the more inaccessible areas of the NCE in the United States; however, the lack of evidence for reproduction or confirmed detections despite decades of search effort for one of the largest and most identifiable land mammals in North

America leads us to conclude that the NCE grizzly bear population in the United States is extirpated (see Gaines et al. 2019, entire; Lewis 2019, p. 5). Therefore, it is no longer warranted for uplisting, and we are removing it from the candidate list. This finding specifically addresses the aforementioned petitions; it does not alter or modify the listing of grizzly bear as a threatened species in the conterminous United States.

The NCE is relatively isolated from other ecosystems with grizzly bear populations in Canada and the United States (Mowat et al. 2013, pp. 4–10; Morgan et al. 2019, p. 3). Natural recolonization is unlikely in the near future due to the highly fragmented landscape between these areas, as well as the distance between these ecosystems, which is beyond the average female dispersal distance. Therefore, it is unlikely that a grizzly bear population will become established in the ecosystem on its own (NPS and Service 2017, p. 36; Service 2022, p. 55). We continue to work with our partners and stakeholders to maintain grizzly bear habitat protections in the NCE as we consider restoration options in the United States.

Current Notice of Review

We gather data on plants and animals, both native and foreign to the United States, that appear to merit consideration for addition to the Lists of Endangered and Threatened Wildlife and Plants (Lists). This document identifies those species that we currently regard as candidates for addition to the Lists. These candidates include species and subspecies of fish, wildlife, or plants, and DPSs of vertebrate animals. This compilation relies on information from status surveys conducted for candidate assessment and on information from Tribes, State Natural Heritage Programs, other State and Federal agencies, foreign countries, knowledgeable scientists, public and private natural resource interests, and comments received in response to previous CNORs.

Tables 5 and 6, below, list animals arranged alphabetically by common names under the major group headings, and list plants alphabetically by names of genera, species, and relevant subspecies and varieties. Animals are grouped by class or order. Useful synonyms and

subgeneric scientific names appear in parentheses with the synonyms preceded by an “equals” sign. We sort plants by scientific name due to the inconsistencies in common names, the inclusion of vernacular and composite subspecific names, and the fact that many plants still lack a standardized common name.

Table 5 lists all candidate species, plus species currently proposed for listing under the Act (as of September 30, 2022). We emphasize that in this document that we are not proposing to list any of the candidate species; rather, we will develop and publish proposed listing rules for these species in the future. We encourage Tribes, State agencies, other Federal agencies, foreign countries, and other parties to consider these species in environmental planning.

In table 5, the “category” column on the left side of the table identifies the status of each species according to the following codes:

PE – Species proposed for listing as endangered. This category, as well as PT and PSAT (below), does not include species for which we have withdrawn or finalized the proposed rule.

PT – Species proposed for listing as threatened.

PSAT – Species proposed for listing as threatened due to similarity of appearance.

C – Candidates: Species for which we have on file sufficient information on biological vulnerability and threats to support proposals to list them as endangered or threatened. Issuance of proposed rules for these species is precluded at present by other higher-priority listing actions. This category includes species for which we made a 12-month warranted-but-precluded finding on a petition to list. Our analysis for this document included making new findings on all petitions for which we previously made “warranted-but-precluded” findings. We identify the species for which we made a continued warranted-but-precluded finding on a resubmitted petition by the code “C*” in the category column (see **Findings for Petitioned Candidate Species**, above, for additional information).

The “Priority” column indicates the LPN for each candidate species, which we use to determine the most appropriate use of our available resources. The lowest numbers have the

highest priority. We assign LPNs based on the immediacy and magnitude of threats, as well as on taxonomic status. We published a complete description of our listing priority system in the *Federal Register* (48 FR 43098; September 21, 1983).

Following the scientific name (third column) and the family designation (fourth column) is the common name (fifth column). The sixth column provides the known historical range for the species or vertebrate population (for vertebrate populations, this is the historical range for the entire species or subspecies and not just the historical range for the distinct population segment), indicated by postal code abbreviations for States and U.S. territories or by country for foreign species. Many species no longer occur in all of the areas listed.

Species in table 6 of this document are those species that we included either as proposed species or as candidates in the previous CNOR (87 FR 26152; May 3, 2022) that are no longer proposed species or candidates for listing (as of September 30, 2022). In FY 2022 (or after; please see note to table 6, below), we listed nine species and removed one species from the candidate list by withdrawing a proposed rule. We also find that uplisting is no longer warranted but precluded for a population of one species. The first column indicates the present status of each species, using the following codes:

E – Species we listed as endangered.

T – Species we listed as threatened.

Rc – Species we removed from the candidate list, because currently available information does not support a proposed listing.

Rp – Species we removed from the candidate list, because we have withdrawn the proposed listing.

The second column indicates why the species is no longer a candidate species or proposed for listing, using the following codes (not all of these codes may have been used in this CNOR):

L – Species we added to the Lists of Endangered and Threatened Wildlife and Plants.

N – Species that are not listable entities based on the Act’s definition of “species” and current taxonomic understanding.

X – Species we believe to be extinct.

The columns describing scientific name, family, common name, and historical range include information as previously described for table 5.

Request for Information

We request additional status information that may be available for any of the candidate species identified in this CNOR. We will consider this information to monitor changes in the status or LPN of candidate species and to manage candidates as we prepare listing documents and future revisions to the CNOR. We also request information on additional species to consider including as candidates as we prepare future updates of this CNOR.

We request you submit any further information on the species named in this document as soon as possible or whenever it becomes available. We are particularly interested in any information:

- (1) Indicating that we should add a species to the list of candidate species;
- (2) Indicating that we should remove a species from candidate status;
- (3) Recommending areas that we should designate as critical habitat, or indicating that designation of critical habitat would not be prudent;
- (4) Documenting threats to any of the included species;
- (5) Describing the immediacy or magnitude of threats facing candidate species;
- (6) Pointing out taxonomic or nomenclature changes for any of the species;
- (7) Suggesting appropriate common names; and
- (8) Noting any mistakes, such as errors in the indicated historical ranges.

We will consider all information provided in response to this CNOR in deciding whether to propose species for listing and when to undertake necessary listing actions (including whether emergency listing under section 4(b)(7) of the Act is appropriate).

Submit information, materials, or comments regarding the species to the person identified as having the lead responsibility for the species in table 4 below.

Table 4. Contacts for Candidate Species and Species Proposed for Listing

Species	Name and Address	Telephone
“Ouachita” fanshell, northern spotted owl, sand dune phacelia, red tree vole	Hugh Morrison Acting Regional Director, U.S. Fish and Wildlife Service, Eastside Federal Complex, 911 N.E. 11th Avenue, Portland, OR 97232-4181	503-231-2176
Bracted twistflower, cactus ferruginous pygmy-owl, prostrate milkweed, Rio Grande cutthroat trout	Amy Lueders Regional Director, U.S. Fish and Wildlife Service, 500 Gold Avenue SW., Room 4012, Albuquerque, NM 87102	505-248-6920
Northern long-eared bat, monarch butterfly, western fanshell	Charles W. Traxler Acting Regional Director, U.S. Fish and Wildlife Service, 5600 American Blvd. West, Suite 990, Bloomington, MN 55437-1458	612-713-5334
Pascagoula map turtle, Pearl River map turtle, Alabama map turtle, Barbour's map turtle, Escambia map turtle, alligator snapping turtle, Ocmulgee skullcap, magnificent ramshorn	Catherine Phillips Acting Regional Director, U.S. Fish and Wildlife Service, 1875 Century Boulevard, Suite 200, Atlanta, GA 30345	404-679-4156
Tricolored bat, bog buck moth	Kyla Hastie Acting Regional Director, U.S. Fish and Wildlife Service, 300 Westgate Center Dr. Hadley, MA 01035	413-253-8200
Grizzly bear, silverspot butterfly	Matt Hogan Regional Director, U.S. Fish and Wildlife Service, 134 Union Blvd. Lakewood, CO 80228	303-236-7920
Delta smelt, Dixie Valley toad, Tiehm's buckwheat, foothill yellow-legged frog, Sacramento Mountains checkerspot butterfly, longfin smelt	Paul Souza Regional Director, U.S. Fish and Wildlife Service, 2800 Cottage Way, Suite W2606, Sacramento, CA 95825	916-414-6464
Sturgeon (Russian, ship, Persian, stellate, and Amur), black-backed tanager, Bogotá rail, Brasília tapaculo, Chatham oystercatcher, Gizo white-eye, helmeted woodpecker, Lord Howe Island pied currawong, Okinawa woodpecker, orange-fronted parakeet, takahē, yellow-browed toucanet,	Gary Frazer Assistant Director, Ecological Services U.S. Fish and Wildlife Service, 5275 Leesburg Pike, MS: ES, Falls Church, VA 22041	202-208-4646

Jamaican kite swallowtail, Kaiser-i-Hind swallowtail, Colorado Delta clam, Egyptian tortoise, fluminense swallowtail butterfly, Hahnel's Amazonian swallowtail butterfly, Harris's mimic swallowtail butterfly, Sira curassow, southern-helmeted curassow	
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We will provide information we receive to the office having lead responsibility for each candidate species mentioned in the submission, and information and comments we receive will become part of the administrative record for the species, which we maintain at the appropriate office.

Public Availability of Comments

Before including your address, phone number, email address, or other personal identifying information in your submission, be advised that your entire submission—including your personal identifying information—may be made publicly available at any time. Although you can ask us in your submission to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

Authority

This document is published under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

Signed: _____

Martha Williams,
Director,
U.S. Fish and Wildlife Service.

Table 5. Candidate Notice of Review (Animals and Plants)

Note: See end of SUPPLEMENTARY INFORMATION for an explanation of symbols used in this table.

Status		Scientific name	Family	Common name	Historical range
Category	Priority				
MAMMALS					
PE	—	<i>Perimyotis subflavus</i>	Vespertilionidae	Bat, tricolored	U.S.A. (AL, AK, CO, CT, DE, DC, FL. GA. IL. IN, IA, KS, KN, LA, ME, MD, MA, MI, MN, MI, MO, NE, NH, NJ, NM, NC, ND, OH, OK, PA, RI, SC, TN, TX, VT, VI, WV, WI, WY), Mexico, Central America
PT	—	<i>Rangifer tarandus groenlandicus x pearyi</i>	Cervidae	Caribou, Dolphin-Union	Canada
PE	—	<i>Tamias minimus atristriatus</i>	Sciuridae	Peñasco least chipmunk	U.S.A (NM)
PT	—	<i>Gulo gulo luscus</i>	Mustelidae	Wolverine, North American (Contiguous U.S. DPS)	U.S.A. (CA, CO, ID, MT, OR, UT, WA, WY)

BIRDS					
C*	2	<i>Pauxi koepckeae</i>	Cracidae	Curassow, Sira	Peru
C*	2	<i>Pauxi unicornis</i>	Cracidae	Curassow, southern helmeted	Bolivia
C*	6	<i>Strepera graculina crissalis</i>	Cracticidae	Currawong, Lord Howe Island pied	Lord Howe Island, New South Wales
C*	8	<i>Haematopus chathamensis</i>	Haematopodidae	Oystercatcher, Chatham	Chatham Islands, New Zealand
C*	8	<i>Cyanoramphus malherbi</i>	Psittacidae	Parakeet, orange-fronted	New Zealand
PT	—	<i>Aptenodytes forsteri</i>	Spheniscidae	Penguin, emperor	Antarctica
PT	—	<i>Pterodroma hasitata</i>	Procellariidae	Petrel, black-capped	Dominican Republic, Haiti, U.S.A. (GA, NC, SC)
PT	—	<i>Tympanuchus pallidicinctus</i>	Phasianidae	Prairie-chicken, lesser (northern DPS)	U.S.A. (CO, KS, NM, OK, TX)
PE	—	<i>Tympanuchus pallidicinctus</i>	Phasianidae	Prairie-chicken, lesser (southern DPS)	U.S.A. (CO, KS, NM, OK, TX)
PT	—	<i>Lagopus leucura rainierensis</i>	Phasianidae	Ptarmigan, Mt. Rainier white-tailed	U.S.A. (WA), Canada (BC)
PT	—	<i>Glaucidium brasilianum cactorum</i>	Strigidae	Pygmy-owl, cactus ferruginous	U.S.A. (AZ, TX), Mexico
C*	2	<i>Rallus semiplumbeus</i>	Rallidae	Rail, Bogota	Colombia
C*	8	<i>Porphyrio hochstetteri</i>	Rallidae	Takahē	New Zealand
C*	8	<i>Tangara peruviana</i>	Thraupidae	Tanager, black-backed	Brazil

C*	2	<i>Scytalopus novacapitalis</i>	Rhinocryptidae	Tapaculo, Brasilia	Brazil
C*	2	<i>Aulacorhynchus huallagae</i>	Ramphastidae	Toucanet, yellow-browed	Peru
C*	2	<i>Zosterops luteirostris</i>	Zosteropidae	White-eye, Gizo	Solomon Islands
C*	8	<i>Celeus galeatus</i>	Picidae	Woodpecker, helmeted	Argentina, Brazil, Paraguay
C*	2	<i>Dendrocopos noguchii</i>	Picidae	Woodpecker, Okinawa	Okinawa Island, Japan
REPTILES					
PT	—	<i>Plestiodon egregius egregius</i>	Scincidae	Florida keys mole skink	U.S.A (FL)
PT	—	<i>Testudo kleinmanni</i>	Testudinidae	Tortoise, Egyptian	Libya, Egypt, Israel
C	8	<i>Gopherus polyphemus</i>	Testudinidae	Tortoise, gopher (eastern population)	U.S.A. (AL, FL, GA, LA, MS, SC)
PSAT	—	<i>Graptemys pulchra</i>	Emydidae	Turtle, Alabama map	U.S.A. (MS, AL, GA, TN)
PT	—	<i>Macrochelys temminckii</i>	Chelydridae	Turtle, alligator snapping	U.S.A. (AL, AK, FL, GA, IL, IN, KS, KN, LA, MS, MO, OK, TN, TX)
PSAT	—	<i>Graptemys barbouri</i>	Emydidae	Turtle, Barbour's map	U.S.A. (FL, GA, AL)
PSAT	—	<i>Graptemys ernsti</i>	Emydidae	Turtle, Escambia map	U.S.A. (AL, FL)
PSAT	—	<i>Graptemys gibbonsi</i>	Emydidae	Turtle, Pascagoula map	U.S.A. (AL, MS)
PSAT	—	<i>Graptemys gibbonsi</i>	Emydidae	Turtle, Pascagoula map	U.S.A. (AL, MS)
PT	—	<i>Graptemys pearlensis</i>	Emydidae	Turtle, Pearl River map	U.S.A. (LA, MS)
PT	—	<i>Macrochelys suwanniensis</i>	Chelydridae	Turtle, Suwannee alligator snapping	U.S.A. (GA, FL)
FISHES					

PT	—	<i>Percina williamsi</i>	Percidae	Darter, sickle	U.S.A (TN & VA)
PT	—	<i>Noturus munitus</i>	Ictaluridae	Madtom, frecklebelly (Upper Coosa River DPS)	U.S.A. (AL, GA, LA, MS, TN)
C	3	<i>Spirinchus thaleichthys</i>	Osmeridae	Smelt, longfin (San Francisco Bay-Delta DPS)	U.S.A. (CA)
PE	—	<i>Acipenser schrenckii</i>	Acipenseridae	Sturgeon, Amur	China, Russia
PE	—	<i>Acipenser persicus</i>	Acipenseridae	Sturgeon, Persian	Armenia, +5 countries
PE	—	<i>Acipenser gueldenstaedtii</i>	Acipenseridae	Sturgeon, Russian	Armenia, +19 countries
PE	—	<i>Acipenser nudiiventris</i>	Acipenseridae	Sturgeon, ship	Armenia, +18 countries
PE	—	<i>Acipenser stellatus</i>	Acipenseridae	Sturgeon, stellate	Armenia, +19 countries
PSAT	—	<i>Salvelinus malma</i>	Salmonidae	Trout, Dolly Varden	U.S.A. (AK, WA), Canada, East Asia
C*	9	<i>Oncorhynchus clarkii virginalis</i>	Salmonidae	Trout, Rio Grande cutthroat	U.S.A. (CO, NM, TX)
CLAMS					
C*	8	<i>Mulinia modesta</i>	Mactridae	Clam, Colorado Delta	Mexico
PT	—	<i>Cyprogenia sp. cf. aberti</i>	Unionidae	Fanshell, “Ouachita”	U.S.A. (AK, LA)
PT	—	<i>Cyprogenia aberti</i>	Unionidae	Fanshell, western	U.S.A. (AK, KS, MO, OK)
PE	—	<i>Lampsilis bergmanni</i>	Unionidae	Fatmucket, Guadalupe	U.S.A. (TX)
PE	—	<i>Lampsilis bracteata</i>	Unionidae	Fatmucket, Texas	U.S.A. (TX)
PT	—	<i>Truncilla macrodon</i>	Unionidae	Fawnsfoot, Texas	U.S.A. (TX)
PT	—	<i>Obovaria subrotunda</i>	Unionidae	Hickorynut, round	U.S.A. (AL, GA, IL, IN, KY, MI, MS, NY, OH, PA, TN, WV), Canada

PT	—	<i>Fusconaia subrotunda</i>	Unionidae	Longsolid	U.S.A. (AL, GA, IL, IN, KY, MS, MO, NY, NC, OH, PA, SC, TN, VA, WV)
PE	—	<i>Cyclonaias necki</i>	Unionidae	Orb, Guadalupe	U.S.A. (TX)
PT	—	<i>Pleurobema rubrum</i>	Unionidae	Pigtoe, pyramid	U.S.A. (AL, KY, TN)
PE	—	<i>Cyclonaias petrina</i>	Unionidae	Pimpleback, Texas	U.S.A. (TX)
PE	—	<i>Fusconaia mitchelli</i>	Unionidae	Spike, false	U.S.A. (TX)
SNAILS					
PE	—	<i>Planorbella magnifica</i>	Planorbidae	Ramshorn, magnificent	U.S.A. (NC)
INSECTS					
C*	2	<i>Parides ascanius</i>	Papilionidae	Butterfly, fluminense swallowtail	Brazil
C*	2	<i>Parides hahneli</i>	Papilionidae	Butterfly, Hahnel's Amazonian swallowtail	Brazil
C*	3	<i>Mimoides</i> (= <i>Eurytides</i>) <i>lysithous harrisianus</i>	Papilionidae	Butterfly, Harris' mimic swallowtail	Brazil
C*	2	(<i>Protographium</i> (= <i>Eurytides</i>) <i>marcellinus</i>)	Papilionidae	Butterfly, Jamaican kite swallowtail	Jamaica
C*	8	<i>Teinopalpus imperialis</i>	Papilionidae	Butterfly, Kaiser-i-Hind swallowtail	Bhutan, China, India, Loas, Myanmar, Nepal, Thailand, Vietnam
C*	8	<i>Danaus plexippus</i>	Nymphalidae	Butterfly, monarch	U.S.A. + 90 Countries
PE	—	<i>Euphydryas anicia cloudecrofti</i>	Nymphalidae	Butterfly, Sacramento Mountains checkerspot	U.S.A. (NM)
PT	—	<i>Speyeria nokomis nokomis</i>	Nymphalidae	Butterfly, silverspot	U.S.A. (CO, UT)
PE	—	<i>Hemileuca maia menyanthevora</i>	Saturniidae	Moth, bog buck	U.S.A. (NY), Canada

FLOWERING PLANTS					
PT	—	<i>Streptanthus bracteatus</i>	Brassicaceae	bracted twistflower	U.S.A. (TX)
PT	—	<i>Scutellaria ocmulgee</i>	Lamiaceae	Ocmulgee skullcap	U.S.A. (GA, SC)
PT	—	<i>Pinus albicaulis</i>	Pinaceae	Pine, whitebark	U.S.A. (CA, ID, MT, NV, OR, WA, WY), Canada (AB, BC)
PE	—	<i>Asclepias prostrata</i>	Apocynaceae	prostrate milkweed	U.S.A. (TX), Mexico
PT	—	<i>Phacelia argentea</i>	Boraginaceae	sand dune phacelia	U.S.A. (CA, OR)
PT	—	<i>Cirsium wrightii</i>	Asteraceae	Thistle, Wright's marsh	U.S.A. (AZ, NM), Mexico
AMPHIBIANS					
PT	—	<i>Rana boylei</i>	Ranidae	Frog, foothill yellow-legged (Central Coast DPS)	U.S.A. (CA)
PT/PE	—	<i>Rana boylei</i>	Ranidae	Frog, foothill yellow-legged (South Coast DPS)	U.S.A. (CA)
PT/PE	—	<i>Rana boylei</i>	Ranidae	Frog, foothill yellow-legged (South Sierra DPS)	U.S.A. (CA)
PT	—	<i>Rana boylei</i>	Ranidae	Frog, foothill yellow-legged (North Feather DPS)	U.S.A. (CA)
LICHENS					
PE	—	<i>Donrichardsia macroneuron</i>	Brachytheciaceae	Moss, South Llano Springs	U.S.A. (TX)

C*: candidate species for which we received petitions and made a continued warranted-but-precluded finding on a resubmitted petition

Table 6. Animals and Plants Formerly Candidates or Formerly Proposed for Listing

Note: See end of SUPPLEMENTARY INFORMATION for an explanation of symbols used in this table.

Status		Scientific name	Family	Common name	Historical range
Category	Priority				
BIRDS					
T*	L	<i>Aptenodytes forsteri</i>	Spheniscidae	Penguin, emperor	Antarctica
MAMMALS					

E*	L	<i>Myotis septentrionalis</i>	Vespertilionidae	Bat, northern long-eared	U.S.A. (AL, AK, CO, CT, DE, DC, FL, GA, IL, IN, IA, KS, KN, LA, ME, MD, MA, MI, MN, MO, MT, NE, NH, NJ, NM, NC, NY, ND, OH, OK, PA, RI, SC, SD, TN, TX, VT, VI, WV, WI, WY), Canada
Rc	X	<i>Ursus arctos horribilis</i>	Ursidae	Bear, grizzly (North Cascades Ecosystem)	U.S.A. (WA), Canada
REPTILES					
Rc	5	<i>Gopherus morafkai</i>	Testudinidae	Tortoise, Sonoran desert	U.S.A. (AZ), Mexico
FISHES					
E	L	<i>Macrhybopsis tetranema</i>	Cyprinidae	Chub, peppered	U.S.A. (CO, KS, NM, OK, TX)
CLAMS					
E	L	<i>Pleurobema atearni</i>	Unionidae	Clubshell, Canoe Creek	U.S.A. (AL)
INSECTS					
T*	L	<i>Atlantea tulita</i>	Nymphalidae	Butterfly, Puerto Rico harlequin	U.S.A. (PR)
AMPHIBIANS					
E*	L	<i>Anaxyrus williamsi</i>	Bufonidae	Toad, Dixie Valley	U.S.A. (NV)
FLOWERING PLANTS					
Rp	N	<i>Astragalus schmollii</i>	Fabaceae	Chapin Mesa milkvetch	U.S.A. (CO)
E	L	<i>Eryngium sparganophyllum</i>	Apiaceae	Arizona eryngo	U.S.A. (AZ)
E*	L	<i>Eriogonum tiehmii</i>	Polygonaceae	Tiehm's buckwheat	U.S.A. (NV)
E	L	<i>Solanum conocarpum</i>	Solanaceae	marron bacora	U.S.A. (PR)

*Denotes species for which a final listing determination has published subsequent to the end of FY 2022 (after September 30, 2022)